AEROSOL AGE

THE MAGAZINE OF PRESSURE PACKAGING

IN
IS
E:

- The Krylon Story
- Clinch Measurement
- Aerosol Golf Tournament
- Butane-Propane Propellants
- SAFCA's Valve and Filling Plant
- Hair Coloring Market Grows

SEPTEMBER, 1959

NEW! A CAP FOR LARGE CANS!

UNBREAKABLE

GILBERT PLASTICS' STACK-CAPS

Fit all fabricated 211's

COSTS LESS

than ordinary stack caps!

Now! Gilbert Plastics' new #301 covers and protects all nozzle styles of fabricated 211 cans. The #301 fits over the outside rim with positive snap-fit. Keeps nozzle dirt-free . . . adds height to your product . . . stacks easily for display.

Gilbert Plastics has the most complete line of plastic stack caps — the right cap to fit every aerosol can in every size and valve style. Write today for samples and prices.

You can depend on GILBERT PLASTICS for all your aerosol closure needs.

Inquiries from qualified factory representatives invited.

GILBERT PLASTICS, INC.

Manufacturers of Fine Plastic Packaging

Executive Offices and Plant: BORIGHT AVENUE, KENILWORTH, N. J. • BRIDGE 2-640

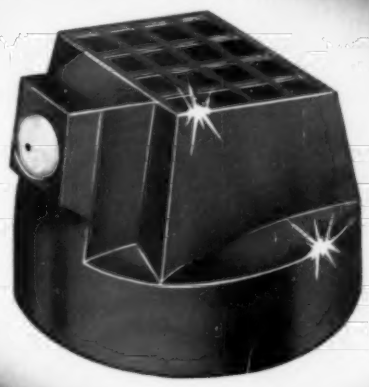
Canadian Distributor: TWINPAK, LTD., 6535 SOMERLED AVE., MONTREAL, QUE

British Affiliate: 1-TO-1 PLASTICS, BRIDGE CLOSE, ROMFORD, ESSEX, ENGL

t last! An elegant new design that gives positive directional control!

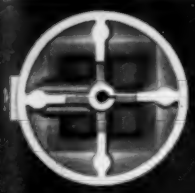
the new JET HEAD

by Aerosol Research



. . . for paint and related products!

new consumer appeal! **new convenience! new savings!**



PERFECT ALIGNMENT EVERY TIME!
New self centering design guarantees it. Speeds assembly, saves time and that means money.

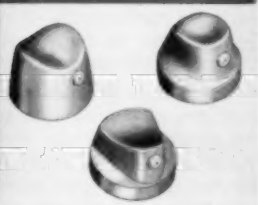
POSITIVE DIRECTIONAL SPRAY!
You just can't miss with Jet Heads built-in accuracy . . . it's designed for everyones convenience.

DESIGNED FOR AR-74 VALVE!
The metering is built right into the spray head . . . cleans easy for trouble free service.

FUNCTIONAL DESIGN!
Jet Head hides the unsightly well of the mounting cup . . . makes a neater package. Really makes color and style of head an important design feature . . . Jet Head colors really stand out.

ELIMINATES FINGER FATIGUE!
Jet Head is designed for the prolonged use of spray paints and related items!

CUSTOM DESIGN SERVICE!
Aerosol Research can custom design to meet large volume buyers special style requirements.



WRIT NOW FOR THE ALL NEW JET HEAD CONCEPT.
IT'S EE . . . and there's no obligation, of course.

743 South Circle / Forest Park, Illinois

AERO OL **RESEARCH COMPANY**

CABLE ADDRESS: AERESCO

Licensees in: England, France, Germany, Spain

AEROSOL RESEARCH COMPANY
743 South Circle / Forest Park, Illinois

Gentlemen: Please send me:

- ☐ Complete data on Jet Head.
- ☐ Have a representative bring samples at no obligation to me.
- ☐ Details on ARC's custom design service!

NAME_____

COMPANY_____

ADDRESS_____

CITY_____ ZONE_____ STATE_____

WILLIAM J. FRITZ was born and raised in Trenton, N. J. Following a hitch in the Navy during World War II, Bill attended Indiana University where he received his bachelor's degree in chemistry. After graduation, Bill gained experience in both industrial sales work and quality-control testing before joining Du Pont. He came to Du Pont in 1957, and was assigned as a research chemist with the "Freon" Products Division. At present, Bill directs the use of analytical devices such as the vapor phase chromatograph and other instruments in the "Freon" Products Sales Service Laboratory at Chestnut Run near Wilmington.

"We can employ Du Pont's arsenal of analytical instruments to help our customers with their aerosol problems"

says William J. Fritz of Du Pont

"Today's most modern instruments and electronic devices are available at our labs to serve the aerosol industry," says Bill Fritz of Du Pont's "Freon" Products Laboratory. A variety of determinations and analyses can be made here on these instruments. We use these analytical tools to help our customers in their work on aerosols."

The technical facilities at Du Pont are just one of the advantages you get at no extra cost when you buy Freon* propellents from Du Pont. Loaders or marketers of aerosol products can take advantage of many sales-building services which only Du Pont offers.

In marketing, Du Pont surveys help you expand sales of your products. Through national advertising and promotion, Du Pont works continuously to build markets for aerosols, bring you a steady flow of new customers. In technical service, Du Pont's know-how and experience can help you with aerosol development or solution of production problems. In the manufacture of "Freon", Du Pont makes aerosol propellents recognized throughout the industry for their quality, performance and properties. And only Du Pont gives you virtually local delivery service from three plants in the U. S., one in Canada and a network of warehouses.

If you have a problem in any area of aerosol development, production or marketing, call or write the Du Pont office nearest you. And be sure you buy "Freon" for all your propellent needs.

E. I. du Pont de Nemours & Co. (Inc.)
"Freon" Products Division 328
Wilmington 98, Delaware

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Chicago 3, Illinois

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REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

**Freon and combinations of Freon- or F- with numerals are Du Pont's registered trademarks for its fluorinated hydrocarbon propellents.*

THIS MONTH'S COVER

F. Millot, New York and Paris, toilet goods marketer, last month introduced its "Crêpe de Chine Poudre Glacee" in an aerosol container made of DuPont's "Zytel" nylon resin fabricated by Apcon Co., Independence, Mo. Product is the first bath powder to be offered in a nylon aerosol. A three-ounce container will retail for $2 plus tax.

SEPTEMBER, 1959 VOL. 4, No. 9

AEROSOL AGE

The magazine of pressure packaging

Feature Articles

THE KRYLON STORY 20

CLINCH MEASUREMENT FOR AEROSOL VALVES 24
By Dr. Herbert Meuresch

SAFCA—VALVE MANUFACTURE AND CUSTOM FILLING 27
By Dr. Tom C. Clark

AEROSOLS BECOMING MORE IMPORTANT IN HAIR COLORING MARKET 30

BUTANE AND PROPANE AS PROPELLANTS—A SYMPOSIUM 33

AEROSOL GOLF TOURNAMENT 37

A TENTATIVE METHOD FOR DROP TESTING GLASS AEROSOLS 38

Departments

IN THE SPOTLIGHT THIS MONTH 8

CONVENTION CALENDAR 8

NEW PRODUCTS AND PACKAGES 31

AEROSOLS IN REVIEW 42

NEWS OF PRESSURE PACKAGING 43

EQUIPMENT, PROCESSES & BULLETINS 56

CUSTOM FILLERS AND PACKERS 71

NEW PATENTS 77

CLASSIFIED ADVERTISEMENTS 79

INDEX TO ADVERTISERS 81

OVER THE TRANSOM 82

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Address all correspondence to Box No. 31, Caldwell, N. J.

Subscription Rates: U. S., one year $3, two years $5; Canada and Pan America one year $4, two years $7; Foreign one year $7, two years $12.

Single Copies: current issue: $0.50. Back issues $1.00. Postage and handling charges for foreign countries on single copies: $1.00.

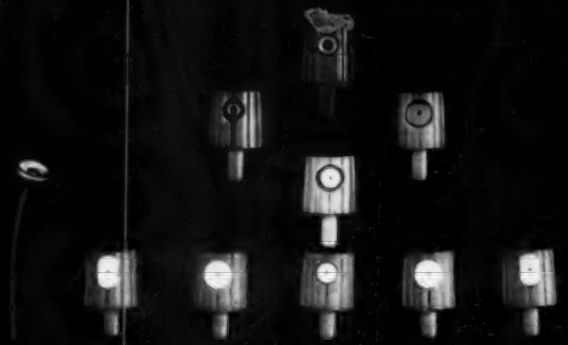
Published monthly on the 25th by Aerosol Publications, Inc. at 229 West 28th St., New York, N. Y. Advertising, Subscription and Editorial Office: Box No. 31, Caldwell, N. J. New York telephone: BArclay 7-7121. Advertising rates on application. Closing date for copy—10th of the month preceding month of issue.

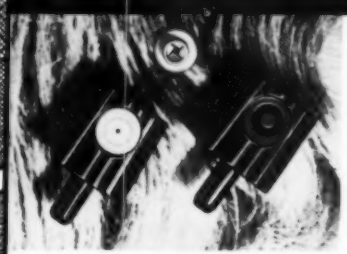
Second-class mail privileges authorized at Post Office Caldwell, New Jersey, with additional entry at New York, New York.

OFFICIAL SCOUTING REPORT

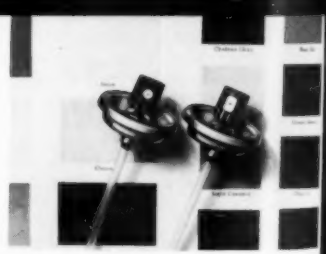
ELEVEN BIG FEATURES

- 360° Twist Top
- Fills Faster
- Tips Interchangeable
- Cleans Easily
- Tips go on Easily
- Contoured Top
- Tubes Swedged on
- Uniform Parts
- For Bottle or Can
- No orifices in metal parts
- No dissimilar metals in valve





INTRODUCED NEARLY TWO YEARS AGO, **Newman-Green's mechanical break-up spray tip is working very successfully with hair lacquers, colognes, personal products, window cleaners, and a variety of other low-pressure formulations.**



NEWMAN-GREEN PAINT VALVES are **designed to clean easier, eliminate clogging due to build-up of paint particles, and give a pattern that is consistent and uniform. More and more manufacturers are using Newman-Green valves every day.**

NEWMAN-GREEN AEROSOL VALVES CHAMPS IN OPERATION AND QUALITY

Use Newman-Green Valves For Mistier Sprays, Real Quality, More Dependable Operation

The built-in quality available only in Newman-Green aerosol valves includes:

- *No small orifices drilled in metal parts.*
- *Delivery tubes swedged on—not slipped over —valve body.*
- *Spray patterns can be varied completely in seconds by changing only spray head.*
- *All metering orifices and spray heads are easily accessible for cleaning.*

In addition, the extra-plus you get from Newman-Green's two-tone spray tips (designed to blend or contrast with your label design) is at no extra cost. Such color contrasting assures quick, positive location of orifice opening and easier use of your aerosol package.

The Newman-Green valve design with built-in quality helps you cut production costs, assures better dispensing of your product with a more uniform pattern. Models are available for all types of metal or glass containers.

Always think first of Newman-Green for help in solving your aerosol valve designing, engineering and manufacturing problems. You will get both service and unsurpassed quality when you call your Newman-Green representative.

INSIST ON NEWMAN-GREEN VALVES. **You gain a competitive edge from built-in engineering quality that can't be matched in the aerosol industry. Service is prompt, and production geared for high volume.**

Newman-Green offers a complete line of aerosol valves. For latest price schedules and/or free samples, please fill and send in this coupon.

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151 Interstate Road
Addison, Illinois

Name_____ **Position**_____

Company_____ **Address**_____

City_____ **State**_____ **(Country)**_____

Intended valve application_____

NEWMAN-GREEN *Creative Aerosol Valve Engineering*

151 Interstate Road, Addison, Illinois

INDUSTRY CALENDAR

New York Chapter of the Society of Cosmetic Chemists, Terrace Room, Hotel New Yorker, New York, Sept. 9.

Chemical Specialties Manufacturers Association, Meeting of Board of Governors, Executive Board and Committees, St. Moritz Hotel, New York, Sept. 15-16. (Association Members' Luncheon Sept. 15.)

Canadian Agricultural Chemicals Association, Chateau Frontenac, Quebec, Sept. 20-24.

Industrial & Building Sanitation - Maintenance Show and Conference, N. Y. Trade Show Building and New Yorker Hotel, New York, Sept. 22-24.

Society of Cosmetic Chemists, 6th annual cosmetic seminar, French Institute, New York, Sept. 23-24.

American Management Association Packaging Seminar on Packaging Line Layout, Hotel Astor, New York, Sept. 28-30.

CSMA Aerosol Industry Technical Clinic, New York, Hotel McAlpin, Oct. 17.

National Paint, Varnish & Lacquer Association, annual convention, Chalfonte-Haddon Hall, Atlantic City, N. J., October 19-21.

National Agricultural Chemicals Association, Sheraton Lick Hotel, French Lick, Ind. .....Oct. 21-23

CSMA Aerosol Industry Technical Clinic, LaSalle Hotel, Chicago, Oct. 24.

Canadian Manufacturers of Chemical Specialties, second annual meeting, Royal York Hotel, Toronto, Nov. 2-4.

Packaging Institute, Annual National Packaging Forum, Hotel Statler, New York.....Nov. 16-18

Packaging Machinery Manufacturers Institute, trade show, New York Coliseum, New York, Nov. 17-20

Toilet Goods Association, winter meeting of Scientific Section, Waldorf Astoria Hotel, New York Dec. 7

Chemical Specialties Manufacturers Association, 46th annual meeting, Mayflower Hotel, Washington, D. C.....Dec. 7-9

In the Spotlight this month

- **The Krylon Story** . . . The filling and merchandising operations of the leading aerosol paint marketer in the country are revealed in this **Aerosol Age** exclusive beginning on page 20.

- **Clinch Measurement of Aerosol Valves** . . . A distinguished European authority outlines some mathematical and physical aspects of achieving accurate clinching of tinplate and aluminum containers. Using a series of diagrams, Dr. Herbert Meuresch, discusses fully this relatively untouched subject on page 24.

- **SAFCA—Valve Manufacture AND Custom Filling** . . . A photographic and descriptive visit is paid to one of the most talked-about and least understood valve manufacturing and custom filling operations in the world. Beginning on page 27 is an account of the company's whole operation.

- **Butane and Propane as Aerosol Propellants** . . . With this installment, **Aerosol Age** begins a series of symposium-type articles on the advantages and disadvantages of using this type of propellant. Storage and handling problems, container leakage, potential danger to the consumer, and other significant factors are considered by leading fillers and suppliers throughout the country. The opening installment appears on page 33.

IT'S SO RELAXING...

...and so much easier to let FRITZSCHE'S experts apply their special skills to the solution of our aerosol fragrance problems! Our reliance on their service rewards us in many ways: we are able to offer better finished products; we have more time to devote to merchandising and sales; our product costs are lower; we have fewer worries *and* more leisure... it's a good deal in every way and we are *all for* FRITZSCHE!

Let us acquaint you with FRITZSCHE service by tackling some *specific* fragrance problem for you. Or if you'd like to sample our fragrances, here are several recently developed by our laboratories for aerosol room sprays:

No. 29975—Spice bouquet; attractive, warm spicy note—pleasant, not phenolic.

No. 29976—Citrus floral with light, delicate, refreshing topnote.

No. 29977—A clean, natural effect; citrus topnote imparts a fresh, exhilarating odor.

No. 30186—A fresh mint bouquet with citrus topnote—a pleasantly unique effect.

If you manufacture or market room sprays, write us for testing samples of one or two of these fragrances.

FB INC.

FRITZSCHE BROTHERS, Inc.

76 NINTH AVENUE NEW YORK 11, N. Y.

Branch Offices and *Stocks: Atlanta, Ga., Boston, Mass., *Chicago, Ill., Cincinnati, Ohio, Greensboro, N. C., *Los Angeles, Cal., Philadelphia, Pa., San Francisco, Cal., St. Louis, Mo., Montreal and *Toronto, Canada; *Mexico, D. F. and *Buenos Aires, Argentina. **Factories:** Clifton, N. J. and Buenos Aires, Argentina.

spray your way

to new profits with

ISOTRON®

Aerosol lotions put something new under the sun—a no-muss way to a no-burn tan. And many similar products . . . including hand lotions, hair cosmetics, colognes, shampoos and depilatories . . . gain instant sales appeal by taking advantage of aerosol packaging with modern propellents like ISOTRON.

Have you investigated your product's aerosol opportunities? Pennsalt's ISOTRON Laboratory helps you with *personalized* aid in adapting your formulation, choosing the correct container, valve and propellent, and testing performance. And expert contract fillers, like those listed here, offer valuable services that simplify production.

Now's the time for a *confidential* discussion of *your* new aerosol. Write or call Pennsalt today.

Pennsalt Chemicals
ESTABLISHED 1850

ISOTRON Department 960
PENNSALT CHEMICALS CORPORATION
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ISOTRON—The Key to Modern Living

For Expert Production of Your Cosmetic Aerosol, Count on . . .

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Bridgeport, Conn.
Aero Fil Co.
Ranson, W. Va.
Aeropak, Inc.
Chicago, Ill.
Aerosol Corp. of the South
Arlington, Tenn.
Aerosol Industries
Div. of Zenith Drug Inc.
Newark, N.J.
Aerosol Techniques, Inc.
Bridgeport, Conn.
A-M-R Chemical Company, Inc.
Brooklyn, N.Y.; Los Angeles, Calif.
Arlenge Laboratories
New York, N.Y.
Armstrong Laboratories
Boston, N.Y.C., Phila.
Associated Brands, Inc.
Brooklyn, N.Y.
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Capitol Packaging Co.
Forest Park (Chicago), Ill.
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Broadview, Ill.
Claire Mfg. Co.
Ft. Lauderdale, Fla.
Continental Filling Corporation
Danville, Ill. & Hobart, Ind.
Eveready Pressurized Products
Cleveland, Ohio
Fluid Chemical Company, Inc.
Newark, N.J.
Gord Industries, Inc.
Northfield, Ill.
Jet-Aer Corporation
Paterson, N.J.
La Maur, Inc.
Minneapolis, Minn.
Larson Laboratories Inc.
Erie, Pa.
Marcy Laboratories Inc.
Chicago, Ill.
Midwest Consultants, Inc.
St. Louis, Mo.
National Spray Can Filling Corp.
Brooklyn, N.Y.
New England Pharmacal Co.
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Peterson Filling & Packaging Co.
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Thomassen of Pa. Inc.
Norristown, Pa.
Wellston Aerosol Mfg. Co.
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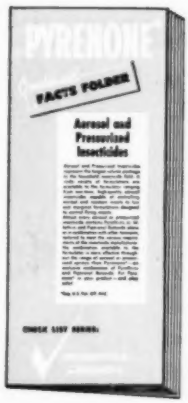
AT YOUR FINGER TIPS *



a library
of vital technical data
to guide insecticide formulators,
manufacturers, PCO's and sanitarians

Designed to aid makers of pesticides in virtually every area of application . . . in the home, food handling and processing, grain storage, post-harvest, dairy, livestock and aerosols, etc.

Included are fool-proof, use-proven basic formulations that contain Pyrenone†, Fairfield's own non-toxic piperonyl butoxide and pyrethrin insecticide base.

Here is a partial list of Fairfield technical aids to help you "tailor make" a *more effective, more economical, more profitable* product.

- ☐ House & Garden Products
- ☐ Dairy Sprays
- ☐ Residual Concentrate
- ☐ Aerosols & Pressurized Insectides
- ☐ Fly Repellent Combinations
- ☐ Industrial Type Aerosols

* ***Ask your Fairfield representative for these and other FREE aids, or write.***

† *Reg. U.S. Pat. Off. FMC*

Putting Ideas to Work

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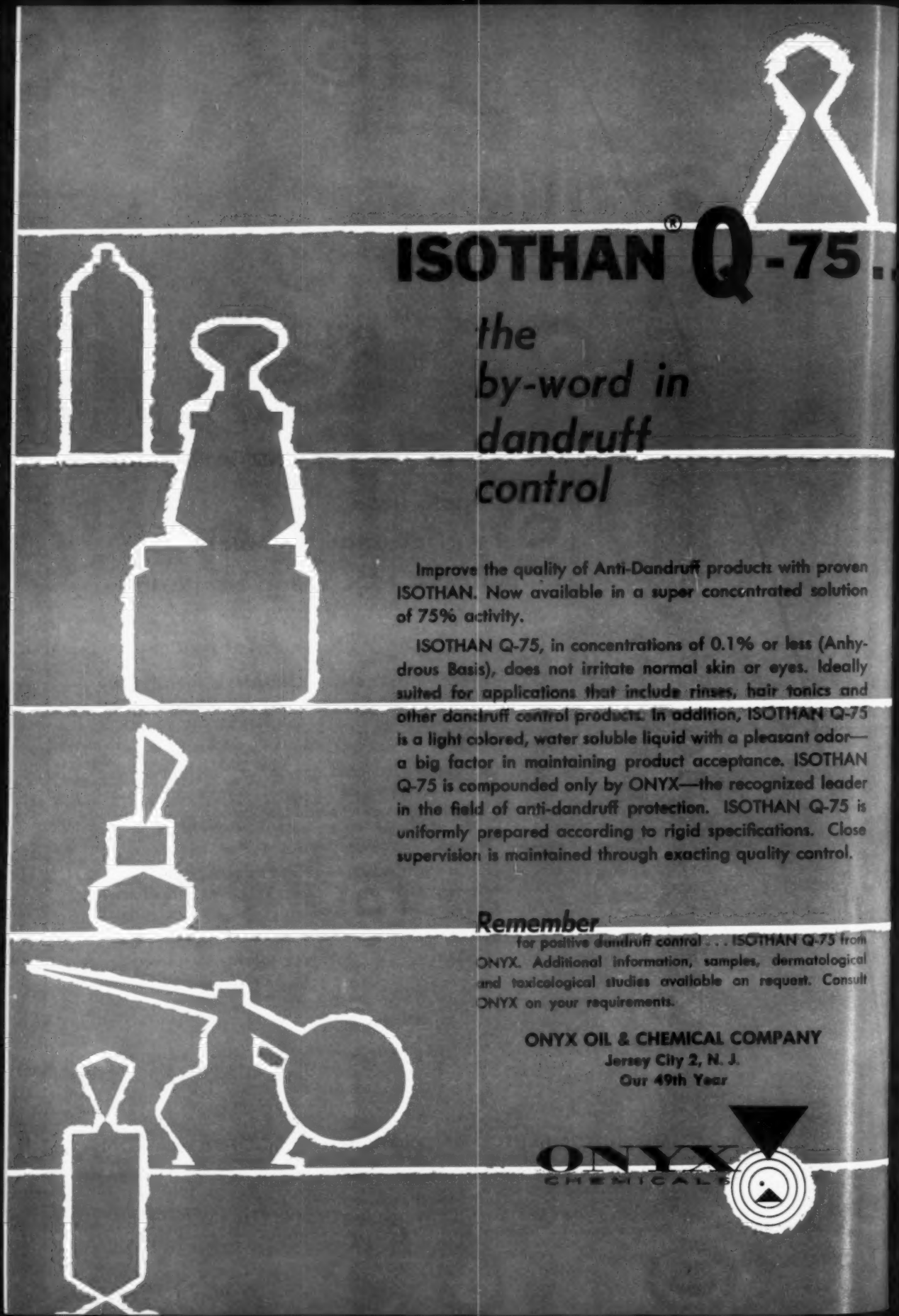


ISOTHAN® Q-75 ..

the by-word in dandruff control

Improve the quality of Anti-Dandruff products with proven ISOTHAN. Now available in a super concentrated solution of 75% activity.

ISOTHAN Q-75, in concentrations of 0.1% or less (Anhydrous Basis), does not irritate normal skin or eyes. Ideally suited for applications that include rinses, hair tonics and other dandruff control products. In addition, ISOTHAN Q-75 is a light colored, water soluble liquid with a pleasant odor—a big factor in maintaining product acceptance. ISOTHAN Q-75 is compounded only by ONYX—the recognized leader in the field of anti-dandruff protection. ISOTHAN Q-75 is uniformly prepared according to rigid specifications. Close supervision is maintained through exacting quality control.

Remember

for positive dandruff control . . . ISOTHAN Q-75 from ONYX. Additional information, samples, dermatological and toxicological studies available on request. Consult ONYX on your requirements.

ONYX OIL & CHEMICAL COMPANY
Jersey City 2, N. J.
Our 49th Year

ONYX CHEMICALS

1959 AEROSOL PACKAGE CONTEST

Sponsored by the Aerosol Division,
Chemical Specialties Manufacturers Association

Products may be entered in any of the following categories:

1. *Insecticides, Repellents and Moth Proofers*
2. *Room Deodorants*
3. *Paints, Enamels, Other Protective Coatings, and Paint Remover*
4. *Other Household Products (snow, polishes, glass cleaner, rug shampoo, water repellents, etc.)*
5. *Shave Products*
6. *Hair Preparations*
7. *Perfumes, Colognes, and Toilet Waters*
8. *Other Personal Products (dentifrices, shampoos, body deodorants, sun tan preparations, etc.)*
9. *Medicinal and Pharmaceutical Products*
10. *Industrial Products*
11. *Food Products*

- All entries will be made in the name of the brand owner or marketer. The product must be on the market and have been *freely offered for sale prior to Sept. 1,* 1959. Contract fillers are urged to enter packages for their customers. Be sure to enter vendor's name on form as required. Entries should be made only with permission of vendor and notification of any award will be sent to the vendor with the name of the individual furnished.
- Entries will close Oct. 15, 1959. All entries should be sent as soon after Sept. 1, 1959, as possible to the Aerosol Awards Committee at the CSMA office, and should comprise one completely *assembled empty* container with attached tag showing (a) name and address of the brand owner; (b) class in which entry is made by number.
- *Send one completed entry blank for each package entered.* Additional entry blanks will be sent promptly on request.
  Do not send counter displays, set up boxes, literature, etc.
- Only *one* entry may be made by any marketer or brand owner in any *one class,* but entries may be made in as many classes as desired by each.
- Entries are open to *any aerosol brand owner or marketer,* anywhere and are *not* restricted to members of CSMA.
- There are no entry fees or other charges to entrants.

Awards will be announced at the 46th annual meeting
of the CSMA, Dec. 7-9.

For further information, complete rules, and entry blanks, write to:

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION
AEROSOL AWARDS COMMITTEE
50 East 41st St., 10th Floor, New York 17, N. Y.

The answers to aerosol valve needs are being developed and perfected daily at Precision . . .

THIS MEANS ADDITIONAL PRODUCT SALES FOR YOU!

This new Precision spray valve, in addition to its slanted finger rest has an imprinted arrow in a second color to show the direction of flow.

A Precision stream spout for dispensing any product, regardless of viscousity, that will pour. Currently most toothpaste and syrup manufacturers, are using this practical and attractive unit.

Upside down spout, designed for toppings is far simpler to use than ordinary spouts and in addition is far easier to keep clean. Just lift and hold under the faucet.

This graceful spout has proven to be a profitable way of dispensing pharmaceuticals and cosmetics. Combined with Precisions metering valve, it dispenses a pre-determined amount with a touch.

• At Precision there is a continuing program of research and development, for each day brings new products to be packaged in aerosol containers. The success of aerosols, is based on functional design and attractive appearance for these two go hand in hand to improve dispensing and increase sales.

Perhaps your product, whether it be dispensed as a foam, a spray, a drop or a stream, should be adapted to an aerosol package. Aerosols have proven, an increase in sales because of appearance, economy and simplicity of use. Precision engineers will be most happy to talk with you.

PRECISION VALVE CORPORATION, 700 NEPPERHAN AVENUE, YONKERS, N. Y.

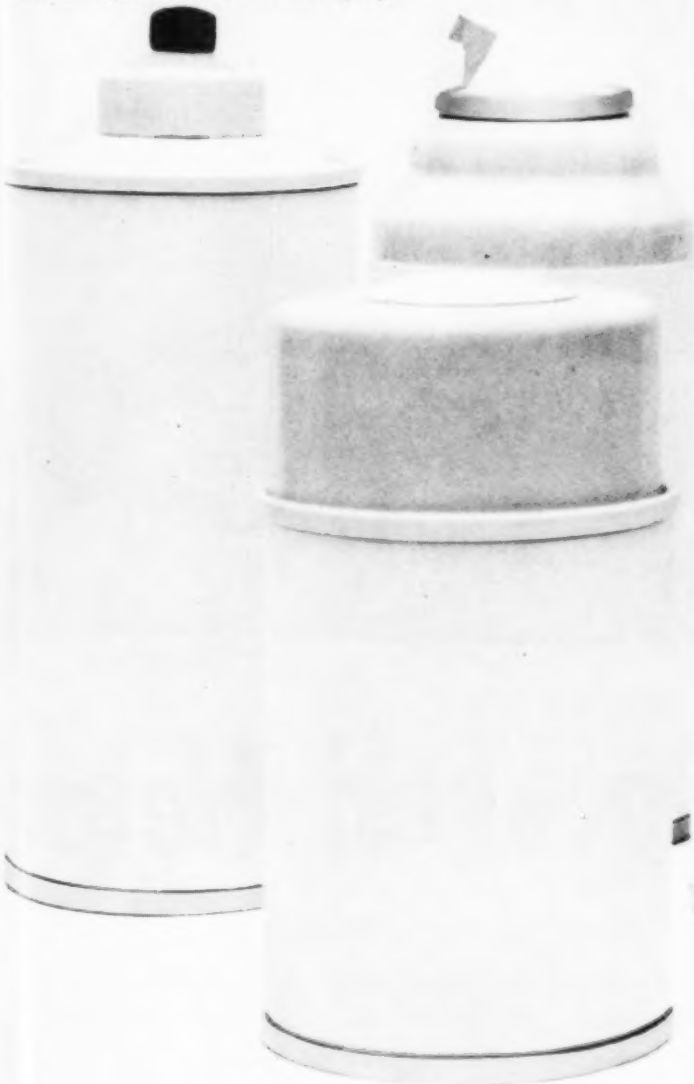
PVP/VA COPOLYMERS

(Vinylpyrrolidone/vinyl acetate copolymers)

FOR PROTECTIVE AND DECORATIVE AEROSOL FILMS

PVP/VA copolymers are especially suitable for aerosols designed as:

- spray-on bandages, gloves / tinted decorative sprays
- antitarnish coatings for metals / shoe polishes, white or colored / protective leaf-shine sprays



TYPICAL FORMULATIONS AVAILABLE

PVP/VA copolymers are compatible with many modifiers and plasticizers so that hygroscopicity, flexibility, and abrasion resistance may be varied over a wide range. Organic solvents are not necessary for stripping these copolymer films as they are water removable.

PVP/VA copolymers are supplied as 50% solutions in SDA-40 anhydrous ethanol (E series) for cosmetic applications and as 50% solutions in anhydrous isopropanol (I series) for noncosmetic uses.

PVP/VA E-735 } (70% vinylpyrrolidone/30% vinyl acetate copolymer)
I-735 }

PVP/VA E-535 } (50% vinylpyrrolidone/50% vinyl acetate copolymer)
I-535 }

PVP/VA E-335 } (30% vinylpyrrolidone/70% vinyl acetate copolymer)
I-335 }

Write for samples and more detailed information.

From Research to Reality

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EDITORIALS

The Aerosol Package Contest

EVERY YEAR the date for entries into the CSMA's annual Aerosol Package Contest, coming as it does just after the summer vacation period, somehow seems to slip by unnoticed more readily than do other less important dates on the calendar. Too quickly the deadline date of October 15 seems to arrive, often before the aerosol packager can get around to putting his product and entry blank into shape to be sent to the CSMA office.

One noteworthy aspect about the contest is that, in spite of the 1959 edition being the ninth such contest in nine years, there are still misconceptions about it. The major one seems to be the mistaken idea (possibly because it *is* a "CSMA Package Contest") that the entry must be from a CSMA member. Actually, a look at the record reveals that the vast majority of winners in the past eight contests have been non-members of the CSMA, and the rules from the beginning have stated that the contest is open to all aerosol marketers, regardless of association affiliation. The impartiality of the judging has never been questioned, since all entries are judged on the basis of general sales appeal by a panel of judges not affiliated in any way with the CSMA or with any of the entrants.

Actually, any aerosol product freely offered for sale prior to Sept. 1, 1959 is eligible for an award in any of the 11 product categories. This qualification is wisely made with the express purpose of excluding experimental packages and package designs which may never be entered on the commercial market.

One aspect of the contest may possibly have been overlooked in the past by aerosol suppliers and custom fillers—namely, that it can be a valuable means of gaining product recognition for the customer. A supply of entry blanks can be obtained by the supplier or filler from the CSMA office and sent out to each of his marketer customers—thus putting the customer on notice about the contest, and that *his* product has a chance of winning. This type of service will be welcomed by the customer as another form of good public relations, and at the same time will build up the contest entries to a number warranted by such a fine endeavor.

Liquefied Petroleum Propellants . . .

AS WAS indicated in this column last month, there is a small but heated controversy brewing over the potential dangers of pressurizing aerosols with propane, butane, and other hydrocarbon propellants. Opinions have been expressed (both in public and private) that these propellants may constitute a danger to the consumer —especially should valves or containers leak propellant when left in closed storage. Also advanced is the theory that a large number of "leakers" in a warehouse or other storage area may set up a hidden explosion menace which won't be fully appreciated until there is a major fire or explosion. And finally, there is the argument that propane-butane propellants are being advocated by fillers solely as a means of saving the customer money, rather than through any consideration of their fitness for a particular product type.

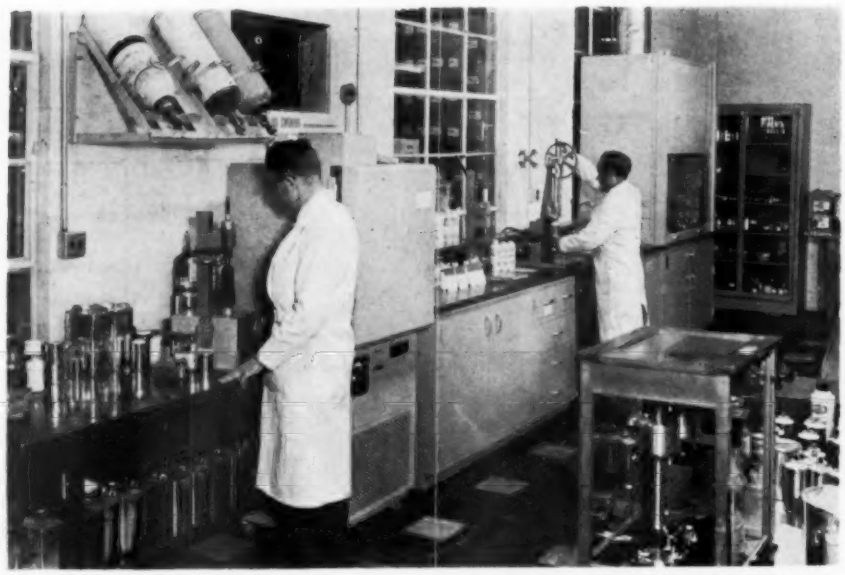
On page 33 there begins a roundup of favorable opinions about the relative safety of these products. In the coming months some of the opinions against these propellants will be quoted, to keep our coverage of the subject in proper perspective.

Propellant and product storage at Thomasson's plant are handled by this outdoor installation.

BEHIND the steadily rising aerosol production figures are many stories of basic administrative confidence in the aerosol idea, and of enthusiastic marketing progress by many retailers and marketers of pressurized products. One of the more unique of these stories is that of Krylon, Inc., Norristown, Pa., which has achieved a place of leadership in the field through use of a broad marketing concept which permits the company to expand its line as fast as new products and new markets can be developed.

With a line already numbering 54 products, Krylon's sales have increased ten-fold since 1953, and are expected to continue to grow at a good rate. Behind this impressive growth is a dynamic, compact organization headed by James W. Bampton, president of the company since

The Krylon Story



Krylon's product formulation and research is done at the company's laboratory, which adjoins the warehouse area. Equipment includes flame extension test chamber, crimping and gassing equipment. Gustav Loehr (left), research director, and Donald O'Brien do formulation and quality control work.

1953. He took over this pioneer aerosol spray coating company at a point when it was not doing well. Tackling the problems of both production and marketing simultaneously, he decided to make the quality and convenience of the products their chief selling points.

Of these two characteristics, probably quality control has been most vital in building jobber and retailer loyalty to Krylon products. At the same time the consumer education program initiated by Mr. Bampton has made new items generally easier to introduce and sell. The result of this double-edged campaign has been ever wider and more profitable product lines for Krylon.

Mr. Bampton refers to the public as his own "research organization." Every week letters pour into his office from consumers who have found new uses for the company's products, or from others who want to suggest completely new product types. A company marketing committee regularly meets to discuss these and other new ideas. Usually about one out of 25 is turned over to the laboratory for study, and of these only about one in ten survive testing and practical conversion to aerosol form.

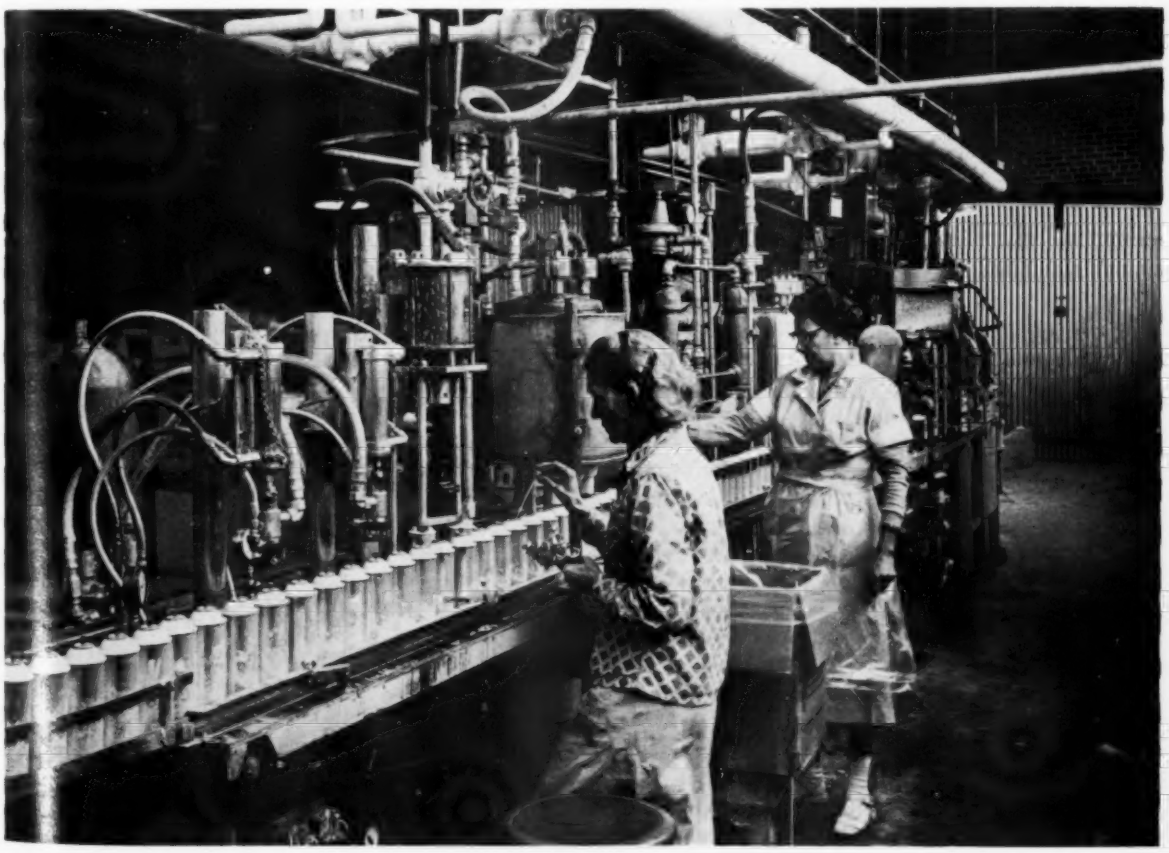
The chief instrument for the expansion of Krylon is actually an affiliated company, Thomasson of Pennsylvania, Inc., one of the country's leading custom fillers. This company is the storehouse for technical knowledge and for the perfection of new packaging techniques. Controlling interest in Thomasson is also held by Mr. Bampton, and although he is his own best customer for aerosol filling, he offers these facilities to other marketers who wish to take advantage of Thomasson's technical knowledge and advanced quality control.

The modern Thomasson plant in Norristown is often visited by marketers, packers, and *even* other custom loaders. "By learning how our testing and production system works," Mr. Bampton points out, "these people become even stronger boosters of aerosol packaging. Sharing our knowledge with others, it is hoped, will help raise the standards of quality products and service for all."

His company's relationship with its potential new customers offers a particular challenge, he declares. "Not every idea brought to us is potentially profitable," he explains, "and we must have the guts to say 'no' to a prospective customer."

Quality control for Krylon actually

One of Thomasson's high-speed filling units is this cold-fill line, which operates automatically (except for valve insertion in containers). Containers are Krylon's 16-ounce paint product.



Merchandising plans for new "glowing" spray paint are discussed by James Bampton, president, (left) and E. E. Kayser, vice-president in charge of advertising and promotion.

begins in Thomasson's laboratory long before a new product is introduced on the market. The first formulation which meets specifications is never accepted without checking all alternatives. For instance, a different propellant mixture, a new container or valve, or a change in the quantity of pigment can often result in considerable advantages over the original sample.

Gustav A. Loehr, research director of protective coatings, supervised the construction of a spacious new laboratory after the company's disastrous fire two years ago. Using the most advanced equipment, some specially designed by Mr. Loehr, a staff of chemists carries out both experimental projects and standard quality control.

The flexibility of the laboratory's design enables the staff to provide rapid service in developing potential new aerosol products. Small runs are test packaged as part of the standard laboratory procedure, and to test the package's ability to withstand transportation handling and climate changes, shipments are often made across the country and returned to the Krylon plant unopened.

Naturally, market testing is especially important to Krylon. The company takes full advantage of the fact that it can have small runs packed without tying up expensive equipment, and the sales department uses these small runs to fully test public opinion prior to full production and promotion.

At the retail level, Krylon's packaging stresses point-of-purchase impact. For instance, when it was decided to revamp the can and label as part of a new sales promotion approach, three separate designs were tested. Test runs of each design were produced and placed side-by-side on the retail shelves. Company researchers noted which can design customers reached for first, and which they finally bought. Polls were taken to gauge package acceptance. One result of all this work was an award to Krylon of the CSMA's best package award for that year.

The company divides its market into four jobber categories: automotive parts jobbers, television parts jobbers, hardware and paint jobbers, and artist supply jobbers. Several retail outlets in each of these categories are surveyed before new designs are adopted.

Over the years Krylon has discovered that success in one field can often be parlayed into success in a related one. For instance, one of the company's early marketing successes was matching automobile finishes. The idea proved highly popular with the consumer, and research was begun with leading farm equipment manufacturers to duplicate *their* colors in spray paint. This line, just introduced, has quickly become popular.

One laboratory success which was converted into a marketing success this year is fluorescent spray paint. This is considered a major breakthrough, because formulating the brilliant pigments so they remain nonclogging under pressure required several years of testing before a stable, uniform spray was perfected. Able to be sprayed on paper, wood, cloth, glass, metal, and plastics, this new formulation offers many practical decorative advantages. It even gives a neon effect under blacklight.

Recently, safety experts have hailed this fluorescent paint as being the ideal marking for aircraft and for manufacturing equipment requiring safety markings. Thus, further new markets are opened.

Television is responsible for rapid growth of one product in Krylon's line, a dulling spray. This product reduces the glare of glass or metal under bright lights. Thus, instead of moving set lights to remove glare, TV technicians can remedy the glare by simply spraying the object with an aerosol spray.

Still growing in popularity is the original Krylon product, an acrylic coating for the preservation of blueprints and artwork. Originally a brush-on product of clear plexiglass manufactured by Foster & Kester, Inc., Philadelphia, it met with limited success until an aerosol version was introduced in 1948. The following year three colored enamels joined the clear plastic spray line, and in 1950 the assets were sold and the new firm became Krylon, Inc.

Krylon is currently organized in such a way that at the same time laboratory technicians are busy developing a new product, Mr. Bampton and his marketing staff are lining up new sales representatives. By the time the product is ready, a marketing organization is ready to handle it. This coordination between product "birth"

and distribution not only saves money, but keeps the enthusiasm of the staff at a high level.

Krylon products are sold in more than 100,000 retail outlets throughout the United States, and in numerous foreign countries. With more than 1,100 jobbers to supply, the logistics of production and storage require highly impressive controls.

Versatile production facilities at the Thomasson plant make possible simultaneous loading of several different products by either pressure or cold filling. The semi-automatic production lines can be changed to either type of loading without interrupting the flow of work. Capacity currently averages 1,200 cans per hour, but can be pushed up as high as 10,000 when a rush order is received.

Raw materials for all formulations are maintained constantly in readiness just outside the loading rooms. Underground tanks safely store 6,000 gallons each of five different solvents and alcohols. Each is distinctively marked and identified by color on the access pipes. Propellant gas is pumped directly from railroad cars into two outdoor storage tanks, with a total capacity of 100,000 pounds.

Pre-mix operations are thus conducted completely outside the loading rooms. Mixtures are circulated between two giant tanks for precise blending, then pumped directly into the production line.

Freshly packed cans move through a hot water test bath, which is one important quality control point in every aerosol plant. Cleated tracks automatically convey the containers while a recording thermometer constantly checks and maintains 130° water temperature. This close control has been largely responsible for Krylon's remarkable record for leak-free cans.

Krylon's facilities now include 70,000 square feet of warehouse space, complete with tail-gate loading platform where six large trailer-trucks can be handled simultaneously. Completed palletized, loading and unloading operations are sped by electronic fork lift trucks. Conveniently located near turnpikes to all parts of the East, the Krylon plant has sidings for two railroads and is close to the Port of Philadelphia. A new plant on the west coast is planned to expedite service there.

Shelf life of a product is studied in the laboratory by Gustav Loehr, research director, and Mr. Bampton. Part of the company's wide variety of paint products are in background.

Labeled for strong sales appeal, capped with color for easy consumer identification and selection, the expanded Krylon line is backed by the biggest advertising and promotion program in spray paint history.

A constant advertiser in *Life* since 1956, the Krylon theme is also now seen regularly in *This Week* magazine supplement of leading Sunday newspapers and on leading television shows.

Trade magazines are used extensively to portray special applications of Krylon products in each field. Dealers are offered generous local cooperative advertising allowances, point-of-purchase displays and sales literature. Extra incentives for jobbers and their salesmen who exceeded quotas for the first quarter of 1959 included 417 prizes ranging from a Cadillac and several Rambler automobiles to TV sets and radios. U. S. Saving Bonds are also awarded jobbers for every purchase of a specific quantity of each product.

Since 1948, Krylon claims to have sold more aerosol spray enamels than all other spray brands combined. According to Mr. Bampton, formula for this success has been aggressive marketing of a broad and profitable line, plus quality control.

Future growth of the line is unlimited, as far as Mr. Bampton's enthusiastic management is concerned. At the moment, the criterion for adding to the line is: "Does it serve a useful purpose . . . will it sell?"

As long as research shows that the proven products are acceptable to the public, Krylon will continue to add them, carefully; aggressively.★

•

West Penn Names McKernan

West Penn Mfg. & Supply Corp., Brackenridge, Pa., manufacturer of aerosol cover caps, last month announced the appointment of E. J. McKernan to be its Midwest sales representative. Mr. McKernan is president of E. J. McKernan Co., 314 East Chicago St., Elgin, Ill.

Mr. McKernan's firm, sales agents for a number of companies in the aerosol industry, will represent West Penn in Illinois, Indiana, Minnesota, and Wisconsin. The agreement makes the McKernan company exclusive representative for West Penn's sales and service in that area.

Clinch Measurement of aerosol valves

By Dr. H. Meuresch
Precision Valve International
Zurich, Switzerland

ALTHOUGH the aerosol industry has been developing for 10 years, and production figures have exceeded a billion, there are still but vague ideas about the right technique of closing containers. The question, why untight containers can still be observed in spite of all efforts, arises again and again.

A. General view

The correct closure of aerosol containers which is to be effected by clinching of the valve cups onto the containers depends on various factors. Each of these factors alone may call for an alteration of the general standard of the closing technique; on the other hand the sum of these single factors as a whole has to be considered for its effects on the closing technique.

There is one general error with regard to the most essential point about the clinch. It is usually assumed that the valve cup gaskets guarantee the tight closure of the container above all on the upper rim of the can. If the clincher is adjusted to the right depth, the upper rim of the valve cup is pulled down due to the deformation the clinch effects on the side wall of the cup, the gasket thus being pressed against the can rim. However, the most effective sealing point is where the wall of the clinched cup is at its shortest distance from the can rim. This upper part of the clinch groove is the spot where the sealing material gets its highest compression.

If there is not proper sealing at this very spot, the sealing material may eventually become plasticized as a result of contact with the packaged product and will consequently be pressed out. This may result, either immediately or eventually, in an escape of the contents of the container. The deformation of the valve cup, due to the clinching process, should therefore theoretically result in causing the cup to cling as closely as possible to the can rim.

The tightest sealing will be obtained if the clinch groove meets the can rim not only at a point but through an appreciable area of its surface:

For technical processes on a mass production level certain variations of dimensions for the individual parts have to be taken into consideration. Therefore it is important to obtain a contact area as large as possible in order to diminish the influence of variations in dimension.

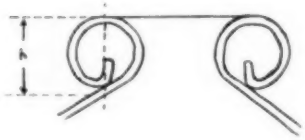
B. General factors of influence on clinch and tightness

1. *The rim of the can*

a - The form

Since the cross-section of the clinch groove always shows the form of a curve, the rim of the container should have a similar form.

(1) The most advantageous form for the rim would be that of circular cross-section, since with this form the contact area would reach a maximum:



(2) Apart from cans having rims of this ideal circular form, there are many type cans with different rim forms:

These can types must not be considered unsuitable for the clinching process, even if they do not have the ideal circular cross-section. They can be sealed absolutely tight, provided that their rim dimensions are not too unusual.

Most of the well-known cans are manufactured as an adaptation of one of the two above principles and therefore present no difficulties for a tight clinch. Unfortunately, however, neither a national nor an interna-tion-

al standard has hitherto been established with regard to this most important part of the cans. It is for that reason that it is impossible at present to indicate a general norm of clinch dimensions.

b - Contour and Parallelity

Disregarding the above mentioned deviations from the circular form of the rim cross-section however there are other divergences of a very serious nature, since they can render a tight clinch impossible.

(1) *Rims with sharp edges*

Now and then cans appear on the market which show relatively sharp-edged rims, especially near the spot where later the clinch groove will meet the rim.

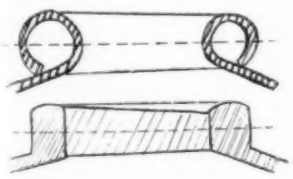
The clinched cups will meet such rims only at a point; it is for that reason that sharp-edged rims are disadvantageous for a tight clinch.

(2) *Uneven rims*

Substantially greater difficulties arise with cans having rims which show unevennesses somewhere. These unnevennesses can be the result of transport damage, forming of chamfers during production, etc. Even very tiny defects of this kind can render such a can useless.

(3) *Parallelity of the rim contour*

If rims show different cross-sections on different spots, or if their profile is not the same along the whole circumference, it will again be nearly impossible to get tightly clinched cans:



(4) *Parallelity of rim and can bottom*

Since the clinch collets are working parallel to the can bottom, the rim has to be exactly parallel to the can bottom. Deviations in this parallelity can render a tight clinch impossible.

All the defect-possibilities (listed earlier under B. 1.) can be met more often with aluminum cans than with steel cans. This does not mean however that aluminum cans in general present more difficulties for the clinching procedure than other cans.

2. *The valve cup gasket*

There are two kinds of gaskets:

a - The flowed-in gasket

This gasket has proved excellent, provided that it is flowed-in correctly and that the material used fulfills the other conditions. Cups with such gaskets are easy to assemble. However, experience shows that aluminum cans sometimes are more difficult to seal with these gaskets than steel cans. Presumably the reason for this is that aluminum is softer and that aluminum cans more often show contour defects on the rim. On the other hand, aluminum cans with perfect rims present no difficulties at all.

b - The laid-in gasket

Formerly all valve cups were assembled with laid-in gasket, although this gasket is now less used than previously. It proved to be very good in use, and today is still highly recommended for use with aluminum cups, because of the above reasons.

c - Special factors of influence on clinch dimensions

The clinch dimensions depend on the dimensions listed below.

1. *Height of can rim*

This height must not be confused with the diameter of the rim, from which it can vary considerably (see point B. L. a) (1) and (2).) For the most well known can types the height of the can rim is:

ca. .155" ∓ .055" = 3.94mm. ∓ 0.13mm

2. *Thickness of cup material*

Steel cups nearly always show the same thickness; therefore this point does not need to be determined in detail.

Aluminum cups are usually made out of thicker material. The deviation can, as far as is known, run up to

.016" = 0.40 mm

These deviations ought to be taken into consideration when adjusting the clincher: more clinch depth and less clinch diameter.

3. *Thickness of gasketing material*

Laid-in gaskets generally have almost double thickness compared to flowed-in gaskets. This fact has also to be taken into consideration in adjusting the clinch depth: more clinch depth in comparison to cups with flowed-in gaskets. It is not necessary though to consider the full difference because of the higher elasticity of the rubber material.

D. True Clinch Dimensions

(see diagram on next page)

For the reasons listed under points A. to C. it is impossible to establish a generally binding standard for true clinch dimensions. They have to be ascertained for every single case by means of tests.

The following suggestions are offered. Naturally they can apply only for certain combinations which are used mostly in normal cases. The standard dimensions specified below are true for the use of

(a) steel cans. with
(b) rim form (1), (2) a) and b) (see B. 1.) and
(c) rim height of .355"∓.005" =3.94mm∓0.13mm
(d) tin plate valve cups with
(e) flowed-in gaskets.

I - Diameter of Clinch Groove

1.068"∓.004"=27.13mm∓0.10mm

The clinch collets can be adjusted to this dimension by measurement when in full clinch position.

There are excellent measuring tools for testing the clinch dimensions on the clinched can. The name of the manufacturer and the price of the measuring instrument can be obtained by writing the author.

II. *Depth of Clinch Groove*

There are also two possibilities for measuring of this distance. However there are different opinions among experts about what method is to be preferred.

a) Measuring on the clincher

It has been asserted that this method is the only exact one and that other methods should not be used.

It is not the clinch groove itself which is measured, but the distance between the lowest point of the clinch collets and the point where the valve cup meets the screw which fixes the clinch depth (diagram below).

The dimensions given below however are true only for an exactly specified contour of the clinch collets. This contour specified in the separate drawing is assumed to be the best one for this purpose. Under these circumstances the true depth amounts to

.241" ∓ .005" = 6.12mm ∓ 0.13mm

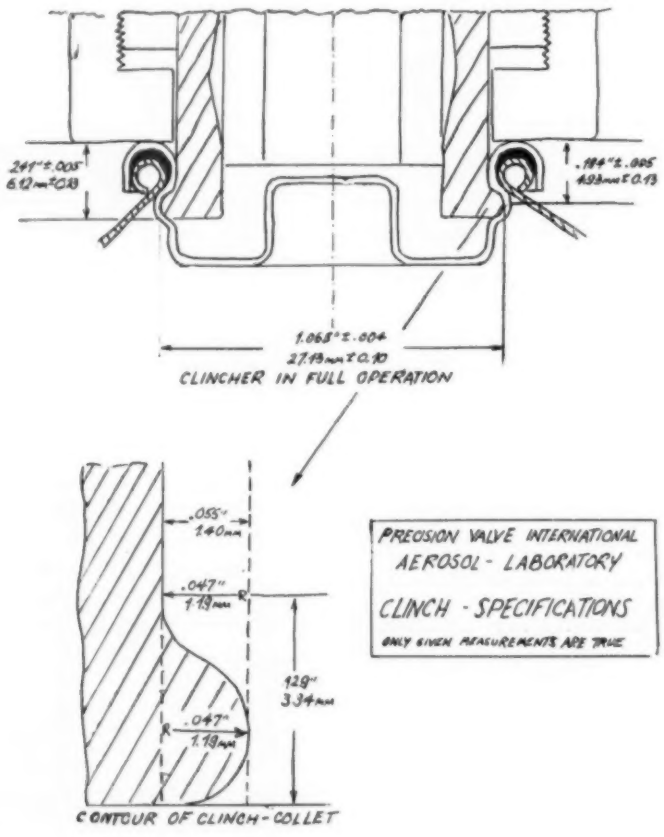
b) Measuring on the clinched can

There is some opinion that this method will not give really exact measures. However very often it is not possible to adapt the first method (II. a)), since in many cases it is unknown whether the clinch collets have the contour specified on the separate drawing. If they do not have the right contour and if the deviations are unknown, the first method can produce incorrect results.

In many cases it is also necessary to measure the depth of the clinch groove directly on the can (especially when dealing with complaints), since there is no other possibility of measuring at all. Here we measure the distance between the top of the cup and the largest diameter of the clinch groove. With respect to the above, the radius of the collet head has to be subtracted from the above mentioned distance: .241", in order to get the absolute depth measure. This absolute depth measure therefore is at its best at

.194" ∓ .005" = 4.93 mm ∓ 0.13 mm.

Clinch Specification Diagram—(PVI Laboratory)



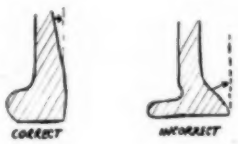
E. Untight cans due to faulty clinch collets

The cup material suffers a heavy strain during the drawing process. In order to reduce this strain to a minimum, the drawing process is divided into 6 to 12 single draughts. This already strained material obviously then can stand further rough and sudden deformation, even less than normal material.

1. *Form of the clinch collets*

a) *The clinching process*

The clinching process should be a smooth one and not an abrupt one. The regulation is dependent on the form of the inner wall of the clinch collets:



As the drawing shows, the incline angle of the inner collet wall has to be relatively small and the incline plunger can press the collet outward only relatively slowly.

b) *Contour of the clinch collet head*

The contour of the clinch collets hitherto considered most advantageous is shown on the separate drawing. The indicated dimensions and radii produce a tight and at the same time a material-sparing clinch.

On the other hand, problems can arise in spite of the right contours, if there are sharp edges or ridges, which unfortunately are encountered rather often. In such cases it is to be expected that the wall of the valve cups may be torn.

Very often the deformations caused by sharp edges or ridges are not immediately recognizable, but they sometimes lead to tension corrosion which can cause difficulties at a later date.★

Appendix

All the statements made in this article are based on the assumptions that the rim of the cans normally have an:

a) outer diameter of
1.228" ± .004" = 31,2 mm ± 0,1 mm

b) inner diameter of
1.000" ± .044" = 25,4 mm ± 0.1 mm

The body of the valve normally has an

c) outer diameter of
.996" ± .002" = 25,29 mm ± 0,05 mm

Final assembly of SAFCA valves is done on this 60-per-minute line. Four operators assemble the four nylon and metal parts.

SAFCA

valve manufacture AND custom filling . . .

By Dr. Tom C. Clark
Aerosol Age European Representative
Druk-Pak, Ltd., Zurich

WHEN René Pollet got out of the army in 1945, he went back to a farm family in southern France near Sérézin-du-Rhône about nine miles from Lyons. On the property was an old mill with good, solid foundations, but long since out of use. His chemical engineering background gave him little taste for farming and he cultivated only enough land to tide over the family in the lean post-war years.

By 1946 he had converted a part of the old mill into space for the manufacture of a specially impregnated paper for killing flies and insects on contact, without the sticky glue paper customarily employed. "Agir" was the name of the product, which is now also packaged as an insecticide in aerosol form. In 1949, with success of "Agir" established, Mr. Pollet turned his attention to aerosol insecticides which were just then making their initial appearance in France. The result of his work was the organization, in 1952, of "S.A.F.C.A." (Société Anonyme Française de Conditionnements (Aérosols), this company of which he is president, makes its own valve, its own filling machines, has a large three-line loading station, a complete laboratory, 150 employees, new buildings to house the various operations, and valve licensees in England, Italy, Spain, Brazil and the Argentine. According to Mr. Pollet, he has "just started"!

General practice in the U. S. is that valve manufacturers do not make loading equipment, or vice versa, and none of them operate filling services. U. S. specialization has advanced to a point where most valve manufacturers don't even make their own mounting cups, spray heads, or other standard parts. Not so with SAFCA, whose engineers have even found time to work out with aluminum can manufacturers a new type of closure which eliminates the one inch mounting cup on the mono-block and other types of cans. American engineers would be astounded at the multiplicity and variety of aerosol problems tackled and solved at this growing factory in southern France.

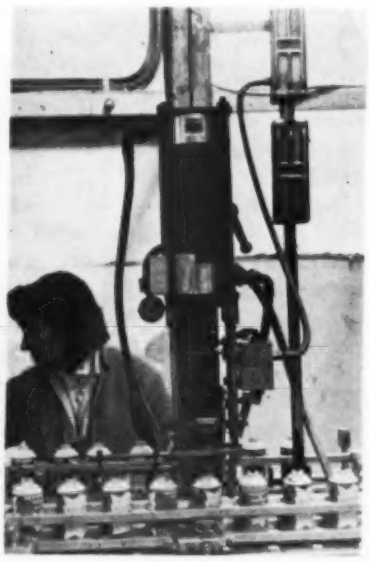
Mr. Pollet's first problem was the valve, and his novel solution is still incorporated in its latest models. The SAFCA valve has no spring to effect closure, this being accomplished by the container's own internal pressure operating against a membrane. The first model, produced in 1952, had 10 parts; the second, semiplastic, six parts; and the latest, just recently introduced, has only three parts, all plastic, which are molded on the company's own machines. This latest model can be furnished in the standard one-inch mounting cup and can also be used on a special neck on aluminum and tin plate cans (with the mounting cup eliminated). The saving in mounting cup and poured-in gasket, in France at least, is said to amount to as much as 25% of the cost of the valve—and the can costs no more.

Before the valve is assembled, SAFCA follows a rigorous inspection system under which each part is separately and individually examined under a microscope. Although this procedure assures trouble-free valves and eliminates complaints, the expense is said to be about 50% of the valve's manufacturing cost. To assure uniform quality, three nylon parts are all molded by SAFCA for its European licensees, which then assemble in their own countries. Cur-

Left: During a visit of European Federation of Aerosol Associations to SAFCA's plant, Dr. Comar, (Spain) in sun glasses, examines some of the products. At right, EFAA members watch standard microscopic examination of valve assemblies. Rejected pieces are placed in boxes at the girl's elbow.

rent capacity of the assembled valves in France is 50,000 per day.

Although the SAFCA valve is one of the most rapid pressure fillers in Europe, Mr. Remané, the company's chief engineer, is an advocate of cold filling. His most recently completed cold line has a rated capacity of 30 per minute, with total plant capacity about 40,000 units per day. The plant has been running at capacity for some time filling for about 34 customers. One of the most important is Pechiney, one of France's leading chemical manufacturers. All three lines are fully automatic, served by two operators, one to place the cans and the other, the valves. The track is pneumatically operated. With a compressor and four refrigerating units, it requires an estimated 35 HP per line. A fully automatic pressure filling line with the same capacity might call for half that, but the cold method is preferred by SAFCA. However, the line is so constructed that propellant chargers could easily be mounted on it, thus converting it to pressure filling. Except for the electrical gear, including relays, switches, timers, etc., all parts of the line are fabricated and assembled at Sérézin-du-Rhône. SAFCA also sell the equipment and furnishes it to their licensees in the various countries.



Left: Crimping head of the automatic filling line. Aluminum cans are furnished with a special neck into which mounted valve, without mounting cup, is placed by hand.

Butane is the principal propellant employed and elaborate precautions are taken to insure safety. The filling lines are housed in separate buildings and as new lines are added, new structures will be built. Special attention has been given to the ventilating systems and large fans suck up escaping gas from gratings underneath the lines, the gas being heavier than air. In some cases, to cut down flammability, butane is diluted with hydrocarbon propellants, each gas being charged separately through different filling nozzles. For industrial purposes some 36-ounce impact-extruded aluminum cans (with a 1,000 ccm capacity) are used. With their wall thickness (thin by U. S. standards) these containers probably would never pass ICC regulations, but they are accepted in France and have been in use for some years.

The excellently equipped laboratory is one of the busiest places in the factory. It is located adjacent to the engineer's offices and drafting rooms and has been the scene of SAFCA's principal developments. Underneath, is the machine shop. In valve and machine development, the tempo is said to be sometimes so fast that the draftsmen cannot keep up and the engineers turn out their own parts—an almost unheard of practice for France, where some engineers do not take off their gloves from one day to another. The laboratory pays special attention to corrosion problems, works out formulations, conducts accelerated shelf-life tests, and performs an all-round

service for their many contract customers.

Starting practically from a ploughed field in an agricultural community, the personnel problem presented considerable difficulties at the start. In France, it is customary to locate most new enterprises in or around Paris, but Mr. Pollet is not one to be bound by tradition, as is evidenced by the fact that the aerosol method is certainly not the traditional one. Actually, the factory parts first completed were the laboratory, a small machine shop, and a small hand filling line. Three engineers, plus some women op-

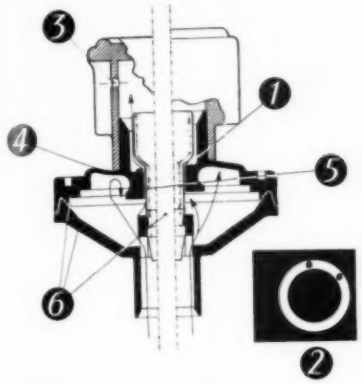


Diagram of SAFCA's all nylon valve, showing (1) valve seat, (2) non-clogging feature, (3) spray head orifice, (4) upper nylon part, (5) valve discharge passages when spray head is depressed, and (6) middle valve stem.

erators to do the actual filling, started the operation. As new units were added, more employees were taken on and of the present staff of 150, about

General view of the filling area. Each shed houses a separate butane filling line.

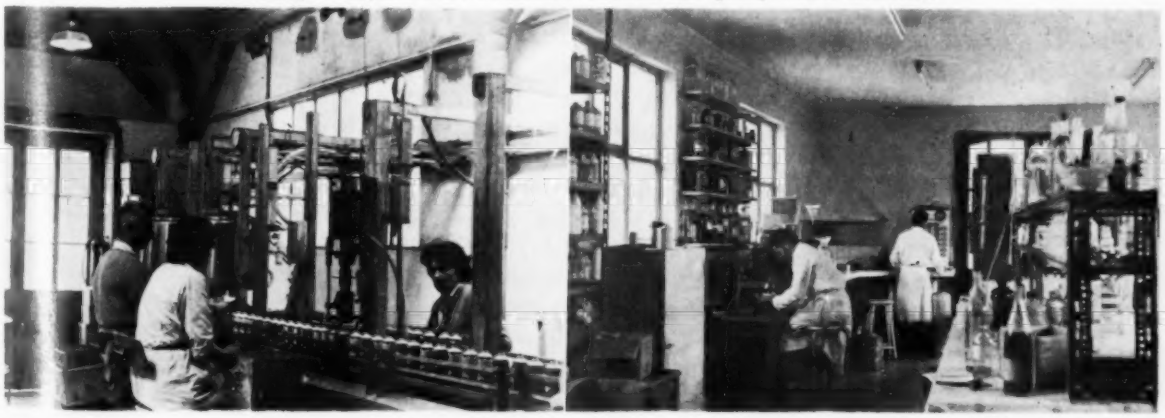
75% are women. Two factory buses pick the personnel up every morning from a radius of about 10 miles from the plant, taking them home in the evenings. In the plant grounds a swimming pool has been built from a part of the old mill stream and a volley ball court added for recreation during the customary two hour lunch period. The near-by inn (with its garden restaurant and fine kitchen) at which the company entertained 75 guests during the plant inspection visit in conjunction with the International Aerosol Symposium in Paris, June 25-27, has been twice expanded since the factory opened. As might be expected, there is no shortage of help at the present time.

SAFCA's future plans embrace two separate dimensions, national and international. So far as France is concerned, the ground work is all laid. Last year, the company acquired an adjoining plot of land, on which was an abandoned factory with 10,000 square feet of floor space, which is now used for storage of raw materials and finished products. Since capacity must be expanded—and management has no doubts about this necessity—new structures to house new lines will be erected. Valve capacity is being expanded and more molding machines are on order. The principal problems have to do with sales, but with France's aerosol production increasing at the rate of around 25% per year (it is estimated at 12 millions for 1958), the future looks bright. SAFCA also has a good export business to France's overseas territories, but this activity has just started.

For its international operations, five valve licensees have already signed up, and the company looks for further expansion as pressure packaging catches on in the smaller countries. Licensees receive not only full rights to the valve but also the filling machines, filling techniques, formulations and all of SAFCA's accumulated "know-how" in the aerosol field. Before making a licensing agreement, the SAFCA management insists that

(*Continued on Page* 72)

Automatic cold line is served by two operators, with a foreman to make adjustments. 30-per-minute line can be converted to pressure filling by addition of chargers after the crimpers. Right: Safca's formulation, research, and quality control laboratory.



Aerosols Expected to Take Growing Percentage of Hair Coloring Market

AEROSOL versions of hair colorings can be expected to take over an increasingly important percentage of the total hair coloring market, a new market report by *Redbook Magazine** has indicated. The report, a study of the entire hair coloring product field, is a compilation of a number of significant consumer studies made by *Redbook*, plus those of a number of other consumer magazines and marketers.

The report indicates that the volume of permanent tints and dyes, temporary color rinses, and color shampoos increased by more than 400% during the period 1947 to 1957, reaching almost $36 million. "As the burgeoning market would indicate, a large number of new hair coloring preparations for home and/or beauty shop use have been introduced during the past 12 or so years." In its section describing recent aerosol products for home use, the report says:

"Aerosol color sprays which provide a completely different method of applying temporary coloring to the hair appeared originally in metallic tones for use in highlighting or streaking hair, and since 1955 or so have been produced in a wide variety of colors, including pastels. Although the spray method of applying temporary coloring had been used by W.B. Associates of New York for their 'Lustress Hair Romance' in 1948, this liquid was packed in a plastic squeeze bottle, not an aerosol.

"The first aerosol color spray was shown at the National Beauty Trades Show held in New York City in August 1951 with the first brand—'Colormist,' made in gold, silver, and copper—appearing on the consumer market in July of the following year. 'Colormist,' imported from England, was distributed in this country by Tampax, Inc., and was followed in August 1954 by Nestle-LeMur's 'Streaks 'n' Tips.' Originally offered in gold and silver, 'Streaks 'n' Tips' in black, brown, and auburn appeared in April 1957 with 'pearly pink' and 'frosty blue' added to the professional line in January 1959. Nestle-LeMur's Harriet Hubbard Ayer Division also offered a color spray—'Midas Touch' in gold and silver—was introduced in July, 1955; black, brown, and auburn shades were added in August 1956, and four more (blonde, brown, auburn, and black) in March 1958.

"Helena Rubinstein entered the field in May 1956, bringing out 'Color Tone Hair Spray,' which, reportedly, was made without lacquer and which came in blonde, red, gray, and brunette shades. In March 1957, following earlier market tests, 'Tint 'N Set' Inc. (Newark, N.J.), began national distribution of its combination color spray and hair setting that was produced in 11 different shades. Roux Distributing Company's entry, 'Color Curl' (in six shades) appeared in February 1958. Described as the first metallic hair color spray' and said to contain 'no shellac, lacquer, or metallic powder,' 'Color Curl' also was produced in a 'brilliant' form."

In its study of buying influences, the *Redbook* staff discovered that women in the family were the *only* influences in the purchase of hair tints and dyes. "Not only did women purchase all such products during the month surveyed (most were bought by the wife, with smaller amounts purchased by girls under 20 in age, or other women in the family) but four-fifths had been purchased at the wife's request. The wife also decided the brand to be purchased in a like number of cases."

Age of the prospective user is a highly significant factor in purchase patterns, it was discovered. Women between the ages of 18 and 35 were somewhat less apt to use hair coloring preparations than were older women. "Among *Redbook* readers who had tried new or improved beauty care products in the year previous to the survey (72.5% of those in the 18-34 age group had done so, compared to 79.3% in the 35 to 39 age category, 57.0% in the 50 and older group, and 71.1% of all readers) hair coloring had been tried by 6.7% of the 18-35 group. Only 3.3% in the 35-49 age group and 2.9% in 50-and-over age categories had tried these products, with the proportion of all readers amounting to 5.2%. A large majority of this group (78.6%) indicated they would continue to use hair coloring preparations. For users in the 18 to 34 age category, the figure was 78.0%, for those in the 35 to 49 group it was 78.1% and for those who were 50 years of age and older, 81.8%."

The *Redbook* findings on age purchase patterns for hair colorings are confirmed by two similar studies, Dell magazines' *20th Survey of Beauty* and the *11th Annual Book Survey*, both of which are outlined in the *Redbook* study.

Another revealing fact revealed by the new study is that nearly seven-eighths of the sales were planned purchases, with only 8.6% spur of

(*Continued on Page* 75)

* Copies of the report are available to marketers and packagers by writing (under their letterhead) to Donald E. West, director of marketing research, Redbook Magazine, 230 Park Avenue, New York 17, N. Y.

Vi-Tyke is a new cherry-flavored multi-vitamin aerosol syrup for children introduced last month by the Lederle Laboratories Division of American Cyanamid Co., Pearl River, N.Y. Custom filled by Stalfort Pressure-Pak, it is equipped with a Precision nitrogen valve. It will retail for something over $3.

Charles Antell Hair Spray is being offered by Charles Antell, New York, as a free-give-away premium with its shampoo. Three-quarter ounce unit is equipped with a Valve Corp. of America valve and actuator. Epon-coated aluminum container is by Peerless Tube Co.

A new polypropylene outer case has been developed for Coty's perfume line by Pyro Plastics, Union, N. J., using "Profax" resin of Hercules Powder. Metalized polyester lamination for outer container is by Coating Products, Englewood, N. J.; valve by Risdon; and uncoated bottle inside container by Wheaton Glass. Contract filling is by Associated Brands, Brooklyn. Eric de Kolb, New York is the designer.

Multi-Lor Paint is a new product of Redram Chemical Co., Brooklyn. Available in a 16-ounce Crown container, it dispenses a minimum of two colors and as many as eight colors from the same container.

NEW PRODUCTS AND PACKAGES

No Noise, new product developed by Electronic Chemical Corp., Jersey City, N. J., last month went on sale at electronic parts jobbers all over the U.S. Feature of six-ounce container is special valve adapter to reach into normally inaccessible places on television sets and other electrical units. Extender was designed by Action Plastics, Inc., Paterson, N.J.

Tropicana Orange Drink Concentrate is a new product of Tropicana, leading marketer of refrigerated orange juice through supermarkets and other outlets. Concentrate is packed in a 16-ounce can, filled with nine and a half ounces of concentrate. Nitrogen-powered package (container by American Can) is equipped with a Precision Valve Corp. valve.

Three-Way Curl Spray, Shulton's new aerosol hair spray, will be introduced Oct. 1 with a national newspaper and television campaign. Pink and gold labelled product with plastic cap will retail for $1.50 plus tax.

Rezifilm surgical spray dressing, in a two-ounce aerosol dispenser, has been introduced by E. R. Squibb & Sons Division of Olin Mathieson Chemical Corp., New York. It is described as the first preparation of its type for pre-operative and post-operative use in preventing wound infections following surgery.

Butane and Propane as Aerosol Propellants

a symposium of opinions on relative safety, danger to the consumer, etc.

Just how safe *are* butane, propane, and the other hydrocarbon propellants? Is the use of such propellants inherently dangerous to the consumer, or has the flammability of the propellants been overemphasized?

In the interest of clearing up some of these questions, *Aerosol Age* here begins a round-up of qualified opinions from suppliers, fillers, and others in the industry. The first three, printed below, are all from fillers who have had experience with these propellants. In coming issues opinions will be printed from fluorinated hydrocarbon propellant suppliers and others who may have opinions contrary to those below. Qualified persons who have had direct experience with the hydrocarbons are invited to contribute *their* opinions to the symposium—The Editor.

By Stanley O. Midtbo

President
I-K-I Manufacturing Co., Inc.
Edgerton, Wisconsin

IN reference to your recent letter, we would like it understood that the majority of our experience with liquefied petroleum gases has been for fuel rather than propellants. However, in the last year we *have* been using hydrocarbon gases as propellants.

It has been our experience that the L.P.G.'s, when handled properly, are no more dangerous than many of the solvents and chemicals used in the industry. It should be pointed out that these gases are heavier than air, therefore special equipment and buildings are required. Without explosion-proof equipment, proper ventilation, as well as experienced personnel, a very hazardous condition could develop, resulting in a tremendous explosion.

We find that the L.P.G.s are best suited for water base products, however, when formulated properly are very effective with other type products. We feel that through continued usage, research and developments the L.P.G.'s will play a much larger part as an effective, cheap propellant in the aerosol field. Better equipment for handling and filling these gases is greatly helping its future.

It is our personal opinion, that using these gases as propellants, does not endanger the consumer more than any other type aerosol. Of course, the consumer must follow the instructions given on the label, regardless of the propellant. We have found that a can charged with a hydrocarbon gas, left in a closed space, such as a medicine cabinet or small closet, would not set up a very dangerous condition, as the gas being heavier than air would move out through the bottom openings. The amount of gas in a can, being very small, would not develop a hazardous condition.

Being an aerosol filler equipped to use liquefied petroleum gases as propellants, we feel its future is just beginning.

•

By S. Jack Campbell

Sales Manager
Continental Filling Corp.
Danville, Ill.

WE have been filling hydrocarbon propellants for quite some time and particularly during the last three years have enjoyed the filling and packaging of literally millions and millions of units containing only hydrocarbons as the propellant or mixtures of hydrocarbons and refrigeration type propellants. We have gained experience in the formulation, handling, and filling of methane, ethane, propane, normal butane, and Iso-butane in all the grades available, including pure technical and commercial grades.

The regular hydrocarbon propellants present several interesting and extremely desirable characteristics. Technical grade hydrocarbons (and, most certainly, the commercial grade hydrocarbons) are considerably cheaper than the halogenated hydrocarbons, or refrigeration type propellants. All of these hydrocarbons have a specific gravity less than 1 and, consequently, float on water. The hydrocarbons are essentially chemically inert. They are soluble or miscible in all proportions with the refrigeration type propellants. The proper choice of the hydrocarbons or blend of hydrocarbons will present appropriate formulation pressure. The hydrocarbon propellant composition can quite easily be determined by gas chromatography.

With all of these good points, the

hydrocarbons do, unfortunately, present some undesirable characteristics. Obviously, the number one bad characteristic is the extreme flammability of these propellants. The technical grade hydrocarbons (and, certainly, the commercial grade hydrocarbons) may contain some contaminants which are very undesirable. These contaminants would include the mercaptans, other sulphur compounds, as well as unsaturated hydrocarbon contaminants, which are capable of chemical activity. These contaminants contribute to malodorous formulations and in many instances severe can corrosion!

In order to use the more economical commercial grade hydrocarbons, we have found it extremely desirable to involve a procedure and apparatus which we refer to as our "scrubbing" operation. This scrubbing operation makes it possible for us to remove essentially all of the mercaptans, sulphur compounds, and unsaturated hydrocarbons. The result is of an extremely clean form of the commercial grade hydrocarbons.

I think that it is an accepted fact that the hydrocarbons obviously are very applicable to the pressurized dispenser. The resultant number one problem involving hydrocarbon propellants is the extreme hazard in storing, handling, and filling. We are presently receiving hydrocarbons in tank car, tank truck, and cylinder shipments. The best sources of information on procedures to be followed in storing and handling propellants are the regulations obtained from the local municipalities and regulations furnished and enforced by the State government. In addition to these, it is also necessary to obtain the guidance and approval of the insuring organization. These three mechanisms will dictate the appropriate location, storage facilities and handling facilities. Good engineering practice is necessary in regard to the production operation. Unfortunately, the vapors from the common hydrocarbon gases are heavier than air. Consequently, they tend to seek the lowest spot in the building they can get to. We have a portable gas detection apparatus which will indicate when the concentration of the hydrocarbons is becoming too high for safety. We have several designated locations in all of our buildings which receive scheduled inspection with the gas detector.

We are presently filling hydrocarbon propellants on two of our high speed lines. In each line the hydrocarbon filling operation takes place in a specially constructed explosion-proof room. We, obviously, have special ventilation equipment for these rooms and always maintain a negative pressure in the rooms so that at all times air is passing from outside the explosion-proof filling rooms into the filling rooms and thus keeping the hydrocarbon vapors from spreading out into the plant. We feel that this represents good engineering practice and, certainly, good horse sense! In addition to the separate, explosion-proof filling rooms and the severe ventilation system, we have automatically controlled fire extinguishing apparatus. Obviously, no smoking is allowed in our plants, except in specially designated areas far from the hydrocarbon material.

The proper formulating of the hydrocarbon propellants in an aerosol package should require special consideration. In most instances, I.C.C. regulations dictate the end resultant flammability characteristics, particularly for those products that are to be spray dispensed. At the moment there is not a thorough regulation involving foam dispensing packages.

We feel that it is very necessary that the package pass the flame projection test. We also feel that it is necessary that the formulation pass the drum test. We would certainly not consider using hydrocarbon as the propellant for a material that would support combustion by itself! There are, however, a couple of useful exceptions involving the diesel starting fluid dispensers and the charcoal lighter dispensers where, obviously, the desired end result involves the positive flammability characteristics.

Fortunately, the hydrocarbons particularly have application for spray dispensing, water base materials. If the hydrocarbon is not soluble in the water base material, then it is only necessary to involve about 2½%-3% propellant in the can. This will provide sufficient liquefied hydrocarbon in the can so that as the can is emptied just before the last increment of liquid has left the can, all of the liquid hydrocarbon has volatilized into the vapor phase, thus providing constant pressure throughout the life of the dispenser and, at the same time, never allowing liquid hydrocarbon to be dispensed. It is also interesting to note that it is possible to involve hydrocarbon propellant in a water base material where a considerable amount of the hydrocarbon will be in solution with the active ingredients and, at the same time, the resultant flame projection characteristics are quite satisfactory. Actually the characteristics of each and every formulation have to be checked and it is not always possible to predict the flammability characteristics.

It has been quite interesting to observe the results of tests involving gross misuse of the normally satisfactory hydrocarbon propelled packages. In most instances, to date, we can observe no additional hazard with the hydrocarbon propelled packages we have produced as compared to the refrigeration type propellant packages. We have purposely blown up many cans. We have actually placed dispensers in a roaring fire and observed that the resultant explosion of the dispensers presents no more of a hazard than the refrigeration propellant type. As a matter of fact, in many instances, particularly with a high water content formula, the resultant explosion in a roaring fire has contributed to better fire extinguishing characteristics than many of the old type insecticide dispensing packages. The oil in these latter packages apparently acted so as to feed fuel to the fire.

We, too, have considered the question of what would happen in the case of a clinch leaker. I think the answer to this is that in regard to the formulations we have filled to date, there is not sufficient hydrocarbon in

(*Continued on Page* 70)

Metalized in gleaming gold, this aerosol bottle for cologne combines consumer appeal with practicality. (By the National Plastic Products Company, Odenton, Maryland, for General Beauty Products, Inc., a division of Coty.)

Beautiful aerosol bottles made of Du Pont ZYTEL nylon resins offer the eye-catching consumer appeal of built-in color or gleaming metalized finishes, plus light weight that saves in shipping costs. Noted for their extreme toughness and strength, ZYTEL resins are also impermeable to propellents and inert to chemicals found in most personal products. Aerosol bottles of ZYTEL resins are tough and durable . . . virtually shatterproof even when dropped on hard bathroom floors.

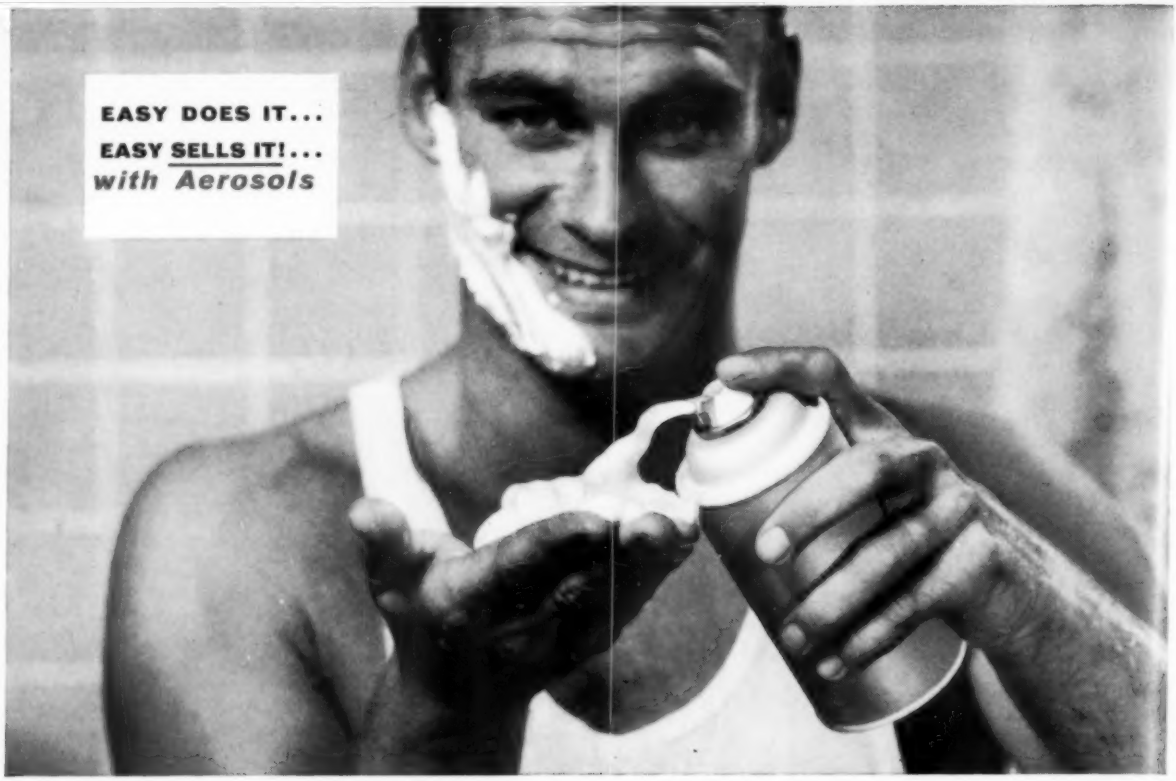
Production advantages are many—ZYTEL resins are available in an easily extrudable form for blow molding . . . or two injection-molded sections may be spin-welded. Whatever your needs in an aerosol container, it will pay you to consider the design advantages offered by ZYTEL nylon resins. For more information, write E. I. du Pont de Nemours & Co. (Inc.), Advertising Department, Room Z-2810, Wilmington 98, Delaware.

POLYCHEMICALS DEPARTMENT

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY



Easier-to-use aerosols SHAVE TIME!

How the magic touch of aerosol packaging has softened up the shave cream market

By majority vote at the cash register, most shavers agree: an aerosol shave is a faster, cleaner, easier shave! These advantages of pressurized shaving lathers sold over 50 million cans in 1958. They accounted for a greater dollar volume than the sales of *all* shaving creams, shaving soaps and shaving sticks combined!

Perhaps *you* have a product which could really soften up a market if packaged in aerosol form. If it can be sprayed, poured, brushed, dusted or daubed—then it's a likely prospect for aerosol packaging. And here's how General Chemical can help you.

Market Information—Helpful facts and figures on the aerosol market are available to present and potential aerosol marketers.

Expert Technical Service—General Chemical has one of the most complete aerosol development laboratories in the country. We will be glad to help you develop the right propellant and formulation compatible with your product, its container and its uses.

Technical Data—The results of our continuing research into new and better aerosols—including information about promising new aerosol formulations developed in our "Genetron" laboratories—are published regularly in special bulletins and reports. Ask to be put on the mailing list for this advanced information.

Contract Fillers—We will also be glad to put you in touch with highly capable contract fillers in all parts of the country who will put up your product in aerosol form for test marketing and handle full commercial production as well.

For further information—or if you would like to arrange for a special market presentation—write today to "Genetron" Dept., General Chemical Division, Allied Chemical Corporation.

genetron®
aerosol propellants

Putting the "push" in America's finest aerosol

Allied Chemical

GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N. Y.

Sun-Lac's Noto Wins Cup At Aerosol Industry Golf Tournament

SALVATORE NOTO, research director of Sun-Lac, Inc., Newark, N. J., custom filler, shooting a sparkling 77, won the Fifth Annual Aerosol Industry Invitational Golf Tournament at Winged Foot Golf Club, Mamaroneck, N. Y., on August 11. Keeping his drives long and straight, Mr. Noto encountered only minor difficulties with Winged Foot's narrow, often curved fairways and ample traps.

The tournament was a special invitational affair sponsored by *Aerosol Age*, Aerosol Research Co., Allied Chemical Corp.'s General Chemical Division, American Can Co., Clayton Corp., Continental Can Co., Crown Cork & Seal Co., E. I. du Pont de Nemours & Co., Hercules Powder Co., Oil Equipment Laboratories, Peerless Tube Co., Pennsalt Chemicals Corp., Precision Valve Co., Risdon Mfg. Co., A. Schrader's Son Division of Scovill Mfg. Co., Union Carbide Chemicals Co., VCA, Inc., and Wheaton Plastics Co.

For Mr. Noto the victory was worth a small trophy plus the huge tournament trophy which may be kept until the 1960 contest. The championship trophy will be competed for each year.

Among the hosts, Len Cannella, of Continental Can, walked off with the 1st low gross (host) award with a 78. Host low net was a 91 (22 handicap) shot by Stan Goldberg, of Aerosol Research Co. Guest low gross was an 81 by Davis Philipson of Aerosol Techniques, Inc.

Salvator Noto in his laboratory at Sun-Lac.

Bob Svendsen, of Chase Products, Inc., always a threat in CSMA golf tournaments, had to settle for the award for guest runner-up low gross, with an 83. Runner-up low net for guest was M. Marveiney (Pharmaceuticals, Inc.).

Other aerosol fillers scored heavily in the net figured on a modified Calloway system. The ranking went like this:

1. Don Menhennett (Eveready)
2. Scott Drummond (Fuller Brush)
3. Eugene Rose (Gene Rose Co.)
4. H. A. Fulton (Avon)
5. J. Schenberg (PowrPak-Conn-Chem)
6. Fred Gardner (ATI)
7. A. C. Custer (Ciba)
8. Rud Saacke (G. Barr)
9. Jack Ellis (Sprayon)
10. Ralph Schweiker (Bon Ami)
11. Fred Presant (ATI)

Accuracy and distance awards on two specially designated holes on the front nine were won by John Gabrielson, of Avon, who landed within four feet eleven inches of the cup on the par three third hole, and by Don Burr of Parry Laboratories, who hit a drive of 226 yards on the long tenth hole. Also in the distance category, John Marana, of Western Filling Corp., was presented with a special award for having traveled the furthest distance (from Los Angeles) to attend.

Among the other awards was one to T. Staff for second low gross—guest, and to Lee Mason for host runner up, low net. John de Elorza, of Old Empire, playing in the same foursome with Sal Noto, tournament winner, won another special award for highest gross of the whole tournament, a 181.

The tournament is an outgrowth of a smaller golf outing sponsored first by VCA in 1955, and then by Precision Valve, Continental Can, and Crown Cork & Seal, in successive years since then. The 1959 affair was the first jointly sponsored by so many of leading aerosol industry suppliers.★

A tentative method of

Drop Testing of Glass Bottle Aerosols

(Prepared by Project Committee on a Standard Drop Test of Glass Aerosol, Scientific Committee, Aerosol Division, Chemical Specialties Manufacturers Assn.)

THIS method is intended to standardize the drop test procedure used in determining the acceptability of a bottle design in a glass container for packaging a given aerosol formulation.

Outline of Method

A. The arithmetic mean height of a specific glass aerosol bottle design is determined by dropping the bottles, loaded with the given formulation, according to the statistical procedure given below.

B. Dropping an additional group of similarly filled bottles at the arithmetic mean height provides a means of evaluating any potential bursting hazard of the final package, incorporating factors of bottle design, formulation, loading techniques, etc.

Apparatus

1. *Drop Surface*

The drop surface consists of a square steel plate one-quarter in. thick and 12 in. on a side. This steel plate is imbedded in a square concrete pad 18 in. on a side and 2 in. thick.

2. *Dropping Mechanism*

The test bottles are held above the drop surface by means of a vacuum system. Release of the vacuum allows the bottles to fall freely. The apparatus consists of a rubber stopper with a one-half in. hole connected to any suitable vacuum system, such as a vacuum pump, laboratory line vacuum, or water aspirator. The line connecting the stopper with the vacuum system is provided with a three-way stopcock for release of the vacuum. The rubber stopper is fastened by any suitable means above the dropping surface in such a position that the falling bottle will land as near as possible to the center of the plate.

Several rubber stoppers with one-half in. holes will be needed for the various shapes of bottles that will be tested. A stopper with a flat surface will serve for flat bottles, while stoppers with curved surfaces cut into them will be necessary in order to obtain a tight seal for bottles having other shapes.

Other mechanisms which give equivalent control of the drop positions may be substituted for the vacuum system.

3. *Ovens*

Air ovens are to be maintained at 70°F and 100°F.

Procedure during Development Stage — Part A

Place the bottles to be tested in room temperature air (70°F to 100°F for a minimum of three hours. Place each bottle in position against the rubber stopper at the terminal of the vacuum system. By opening the vacuum system to atmospheric pressure by means of the three-way stopcock, the vacuum on the bottle is released and the bottle is allowed to fall upon the drop surface. Care must be taken to position and to release the bottle properly so as to prevent twisting and rotation in the air as the bottle falls.

A total of 75 bottles are dropped from one given drop position at room temperature (70°F to 100°F). Drop each bottle only once. The drop schedule is based on a statistical design known as the "up and down" method of sensitivity testing (1). If a bottle breaks* at a given height, the next bottle is dropped from a height one interval lower. If a bottle does not break, the next bottle is dropped from a height of one interval higher.

Drop the first bottle at 6 ft. If the bottle breaks, drop the next bottle at 4 ft. If that bottle breaks, drop the next bottle from 2 ft. If this bottle does not break, drop the next bottle at 4 ft. Again, if that bottle breaks, drop the next bottle at 2 ft. Follow this procedure throughout the testing of the 75 bottles. The interval between adjacent drop levels, d, is 2 ft.; i.e., drop levels of 2 ft., 4 ft., 6 ft., 8 ft., 10 ft., etc. It is required for statistical purposes that this schedule of drop heights be followed exactly. If, because of ceiling limitations, it is impossible to use very high drop heights, it will be permissible to stop at a maximum height of about 14 or 16 ft.

Record for each drop height the number of bottles which break and number of bottles which did not break. Tabulate these data as in Table I. In the example,

Table I**
Summary of Drop Data

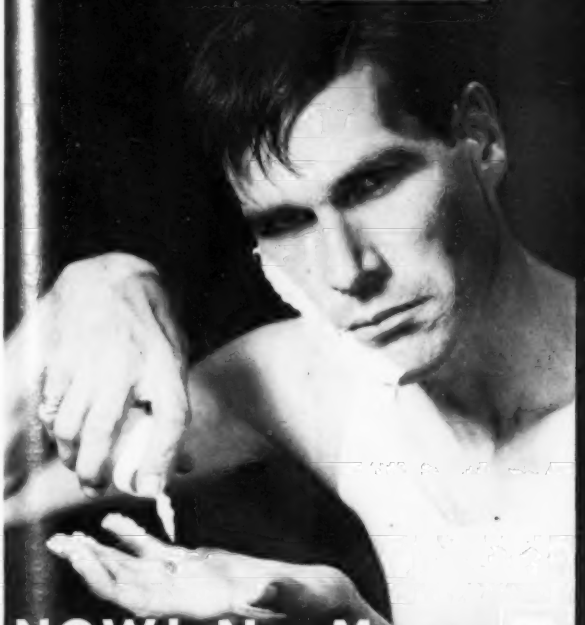
Height (ft.)	*No. of Bottles Which Break*	*No. of Bottles Which Do Not Break*
10	2	0
8	22	2
6	11	23
4	2	11
2	0	2
Total	37	38

** The values in Table I must meet this or one less than) the number of "no breaks test: the number of breaks at any given at a height of one interval (d) lower. height must be equal to (or one more than

* A break is defined as: bottle breaks and is no longer usable. In the case of plastic-coated bottles, it is considered as a break for the statistical definition if the glass breaks, even though the plastic coating remains intact.

LOST: Another Comsumer due to **PW**

FOUND: A Foam-Type Valve that *eliminates* **PW** ... and builds **SALES!**



NOW! No More Product Waste with the New CLINTON FOAM-TYPE VALVE

Nobody benefits when a faulty valve prevents the consumer from getting everything out of the container you put into it. He loses confidence in your product (along with his temper) and you lose a customer. That's why it's so important to specify a valve which is engineered to discharge *all* the product in the container. And that's what makes the Clinton Foam-type valve capable of fulfilling this vital role to perfection. For built-in quality at a truly competitive price insist on the valve that is the result of years of experiment and research . . . the Clinton foam-type valve.

When You Specify A Clinton Foam-Type Valve
Here's What You Get:

- Extremely close tolerances are maintained to guarantee uniform pre-loading and trigger-quick shut off.
- Plain or decorator tipped valves are designed for every product, no matter what density or viscosity.
- Years of research and development have gone into the design and manufacture of the Clinton Foam-type Valve. There is none finer . . . at any price!
- Residual gas pressure remains in the container until after the product is dispensed.

We have been licensed to manufacture the lever-type dust cap.
We will engineer, tool, and mould any cap cover suitable for your product.

SUPERIOR in QUALITY, PERFORMANCE, PRICE!

PROVE it yourself . . . At our expense!

Write today for the full assortment of Clinton foam-type valves. Let your research department run them through the most severe tests they can devise. No cost or obligation, of course. We'll even pay the postage. Just write to:

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3513 GROESBECK HIGHWAY MT. CLEMENS, MICHIGAN

it is seen that no bottles broke at 2 ft., 2 bottles broke at 4 ft., 11 at 6 ft., 22 at 8 ft., and 2 at 10 ft. If a bottle breaks at 2 ft., it is proper to record the next bottle as a "no break" at zero ft. and to set it aside as if it had been dropped.

In Table I, the total number of breaks (N-37) is one less than the total number of "no breaks." Therefore, the breaks are referred to as the less frequent event. If, however, there had been more breaks than "no breaks", the "no breaks" would be referred to as the less frequent event. The following arrangement of the data and the subsequent equations must be based on the less frequent event.

Record the data for the less frequent event (breaks) as shown in the example of Table II. The values of "i" are 0, 1, 2, 3, etc., where $i = 0$ is defined as the lowest height at which breaks occurred (i.e. 4 ft.) and $i = 1, 2, 3$, etc., are at increasingly higher levels at which the breaks occurred. the "n_i" values are the frequency or number of breaks at each level of "i". Multiply "i" by "n_i", and obtain the values under the "in_i" column.

Table II
Drop Test Statistical Data

i	n_i	in_i
3	2	6
2	22	44
1	11	11
0	2	0
Totals	N = 37	A = 61

Add the "in_i" column to obtain the sum "A".

Using this value for A, calculate the arithmetic mean height, $\overline{X}$, by the following formula:

$$\text{(Formula 1)}\quad \overline{X} = y' + \left(\frac{A}{N} + \frac{1}{2}\right)d = 4 + \left(\frac{61}{37} - \frac{1}{2}\right)2$$

$$= 4 + (1.65 - .50)2 = 4 + 2.30 = 6.3 \text{ ft.}$$

where y' is the lowest height in feet at which the less frequent event occurred, N is sum of the n_i values in Table II, and d is the interval between drop levels (2 ft.). "The plus sign is used when the calculation is based on "no breaks" and the minus sign when the calculation is based on "breaks"; therefore, a minus sign must be used.

In the initial testing of a new aerosol bottle (formulation, design, etc.), data are first collected to determine the weakest and most vulnerable position of the bottle. Generally, the number of drop positions is determined by the design of the bottle. One position is the bottom of the bottle. The other positions depend on the wall shape. If the bottle is spherical or cylindrical, i.e., symmetrically designed, there is only one drop position on the side. If, however, the bottle is elliptical or some other shape nonsymmetrical with respect to its longitudinal axis, there are at least two side drop positions—one on the edge and one on the flat side.

Repeat the procedure just described previously for each of the remaining possible drop positions. Calculate $\overline{X}$ for each position. Select the weakest and most vulnerable position as that position corresponding to the lowest value of the arithmetic mean height ($\overline{X}_A$).

It is apparent that there will be cases where an aerosol container may break on being dropped and still may not present a consumer hazard. Throughout this procedure, the potential hazard is assessed in relation to the extent of flying glass or other fragments which are projected from the broken container.

To assess this potential hazard, select at random 200 additional containers and place 100 in the 70° F oven and 100 in the 100° F oven for three hours minimum. Drop each container (only once) from a constant drop height which will now be set at a height equal to the arithmetic mean height ($\overline{X}_A$) corresponding to the weakest position (or 6 ft., whichever is the lower height). Record the number of nonbreaks, the number of breaks, and the number of the breaks which project flying fragments from the container, as in the example of Table III for coated bottles.

TABLE III

	70° F	100° F
Total bottles dropped from arithmetic mean height $\overline{X}_A$ ft. (or 6 ft., whichever is lower)	100	100
Number of nonbreaks	50	50
Number of breaks	50	50
Number of the breaks which project flying fragments	2	4

With data corresponding to those in Table III, the loader, marketer, etc., will be in a position to decide for himself whether the formulation and the container constitute a package that meets his safety standards.

Procedure for Testing during Production—Part B

To insure that a bottle design and formulation which have met the specifications set forth in Part A continue to stay within specifications during production, the bottles as they come off the loading line are drop tested periodically.

The test consists of dropping at only one temperature (either 70° F or 100° F) a minimum sample of 100 bottles randomly selected from a given production run (one shift or one day), using the same procedure outlined in Table III above.

Factors and Principles Used in Developing the Method for Testing Glass Bottle Aerosols

The purpose of this section is to review the factors and principles considered in the proposed test method.

A. Apparatus

1. *Drop Surface*

The selection of a ¼-inch steel plate imbedded in a concrete pad was made simply to obtain a good, solid, uniform surface which would give the maximum degree of reproducibility in the testing of a large number of bottles. It was found that concrete, marble, ceramic tiles, etc., chipped and spalled badly due to the impact of the bottles. In addition, there is an old "rule-of-thumb" guide which says that the object on which a test unit is to be dropped should have a mass in the order of 100 times the mass of the test unit.

This is done in order that the energy of impact which is dissipated by the "drop surface" will have a minimum of effect on it

2. *Dropping Mechanism*

The selection of a vacuum system to hold the test bottles in the required position prior to testing was the result of the desire to keep the necessary apparatus as simple and as readily accessible as possible. An additional feature of the system is that it reduces the possibility of giving a torque to the freely falling bottle.

3. *Temperature of Contents*

Temperatures of 70° F to 100° F were arbitrarily selected as reasonable temperatures the consumer might encounter with the container. The breakage of glass itself was not found to be affected within this temperature range. For the test purposes, these temperatures should be maintained by use of a constant temperature air oven rather than a hot water bath. The plastic coatings on clear coated bottles have been observed to turn "milky" in appearance after a short time in a water bath due to absorption of water. Presumably this absorption of water could temporarily or permanently alter the physical properties (tensile strength and elastic limit) of the coatings.

(*Continued on Page 73*)

Have businessmen met their obligation in public affairs?

American Can Company believes more can be done by business leaders to strengthen our economic system and protect our American way of life. Here is our program:

Business, large or small, operates in a world in which powerful forces are at work marketing ideas that undermine our political and economic system. The public is being hoaxed into believing that the nation can consume more than it produces, that our standards of living can be increased by restricting output and reducing hours of work, and that the "good life" is a life of irresponsibility. The belief is fostered that through taxing and spending a more powerful central government can take care of everything.

We believe management leaders must find a way to put industry in its true perspective, and to convince the public that our principles and methods are in the interests of everyone, not just a few.

Our program of information and education:

FIRST—we encourage everyone in our management to discuss and take a firm stand on issues that directly affect the welfare of our nation, our company and its people.

SECOND—we let every employee know exactly what we stand for, and why. We provide them with a constant flow of facts and viewpoints. We are hopeful their good sense will lend support to our ideas.

THIRD—we give our managers the opportunity to study political processes and learn the art of practical politics. We urge them to take an active role in local politics in the party of their own choice—on their own time, at their own expense.

FOURTH—our views on important issues are made known in full detail to the top management people, who have been designated as company spokesmen. After careful study of these views, they give their own conclusions to the Congressmen and Senators representing those areas where Canco facilities are located.

We believe such a program is good—good for business, good for people in business, good for the nation. We hope you will realize its importance and, if you have not already done so, we suggest that you instigate similar action in your own organizations.

CANCO

American Can Company

AEROSOLS in review

In this column important aerosol subjects appearing in other periodicals (both domestic and foreign) will be reviewed and summarized. It is felt that this service will enable the reader to keep abreast of most of the significant contemporary articles on the industry, even though they may appear in other periodicals. Since there is a chance that some pertinent articles may be overlooked, it will be helpful if readers will call our attention to any they judge important enough to review.—*The Editor.*

Aerosols Among Fastest Growing Drug Store Items

AEROSOL colognes, with drug store sales of $12.5 million, ranked third among the 12 fastest growing toiletries in the drug stores in 1958, the 12th annual *Drug Topics* survey of consumer expenditures for drug store products has revealed. The only products which surpassed aerosol cologne in percentage gain over the previous year (1957) on this particular list were roll-on deodorants and color shampoos.

Aerosols also ranked very high in the survey's list of the 12 fastest growing "other products" in drug stores. Aerosol household deodorizers (with $3,850,000) ranked second behind watch bands, and scored an increase of 19.5% over 1957 sales. Aerosol space sprays ranked sixth on the list, recording a sales figure of $4,810,000 and an increase of 13.2%. Just behind in seventh place were aerosol pesticides with $4,130,000 and 12.3%. Aerosol moth control agents ranked tenth, with total sales in drug stores of $1,730,000 and an increase of 11.2%.

In still another ranking, "drug store top 12 sellers in toiletries", aerosol spray hair fixatives held the second spot with total sales of $38,370,000, although this figure was down 3.5% from '57 (most of the sales going to supermarkets and other retail outlets). Toothpastes (aerosols included) ranked first in this listing with $55,860,000 and an increase of 5.5%.

The table below is a listing of all aerosol products covered in the survey.

•

DDT resistant *Aedes aegypti* mosquitoes appear to "show a more sensitive response to light than do susceptible strains," declares R. J. Wood in the June issue of *Pest Technology*, British trade periodical. Writing on "Resistance in Mosquitoes," Mr. Wood reports that this difference in response to light will be "doubtless reflected in the choice of oviposition sites in the field."

"The resistant strains will be more inclined toward the almost totally enclosed very dark type of container, of which a deep, heavily shaded tree-hole is a good example." Mr. Wood uses reports of tests in Panama, Trinidad, and the U. S. to back up his findings.

•

A GOOD discussion of some of the problems associated with the introduction of a nationally marketed aerosol product was a feature of the May issue of *Advertising Requirements*. The product discussed is Johnson's "Pledge", aerosol wax introduced in March 1958 "right in the

(*Continued on Page* 74)

1958 Aerosol Product Sales in Drug Stores

(Add 000 To All Dollar Figures)

	1958		1957		Percentage Change From 1957 to '58	
	Civilian Spending in All Outlets	*Spending in Drug Stores Only*	*Civilian Spending in All Outlets*	*Spending in Drug Stores Only*	*In Tot.*	*In D.S.*
Personal Insect Repellents.....	4,980	3,030	4,960	3,020	0.4	0.3
Spray Hair Fixatives.....	81,500	38,370	82,540	39,760	—1.3	—3.5
Aerosol Shave Creams.....	39,540	16,040	36,000	15,220	9.8	5.4
Aerosol Cologne	37,620	12,470	30,629	9,910	22.9	25.8
Aerosol Personal Deodorants....	670	300	740	350	—9.4	—13.6
Aerosol	52,130	12,300	43,950	11,200	18.6	9.9
Moth Control Agents.....	3,170	1,730	2,550	1,560	24.4	11.2
Space Sprays	27,190	4,810	22,360	4,250	21.6	13.2
Surface Sprays	15,710	4,130	14,060	3,940	11.7	4.9
All Other Aerosol.....	6,060	1,630	4,980	1,450	21.6	12.3
Household Deodorizers	51,180	6,190	46,960	6,150	9.0	0.7
Aerosol	39,460	3,850	31,480	3,220	25.3	19.5

NEWS of Pressure Packaging

Aeropak Opens N. J. Plant

Aeropak, Inc., Chicago, has expanded its aerosol packaging capacity with the acquisition of new facilities at Kearney, N. J. at a plant formerly occupied by DuPont. These facilities will be operated by an affiliate company, Aeropak, N. J., with the Aeropak, Inc. sales organization assuming sales responsibility for the new company. Aerosol filling and warehousing facilities at the explosion-proof plant began operations in August.

The new plant will also serve as an eastern F.O.B. point for Aeropak's customers. The 24,000-sq.-ft. plant has a production line with a loading capacity of 4,000 units-per-hour. Facilities include a rail siding and docks for six trucks. It is located at 548 Belleville Turnpike, Kearney, N. J.

Plans are now under way for the addition of a research laboratory to augment that in the Chicago plant. Both Aeropak, N.J. and Aeropak, Inc., of Chicago will pressure-package cosmetics, pharmaceuticals, veterinary products, protective coatings, industrial chemicals and food products. A pioneer in aerosol packaging, Aeropak, Inc. has been an affiliate of DeMert and Dougherty, Inc. for 11 years.

•

Honor Aerosol Executive

Kenneth Duncan, sales promotion manager for household products of S. C. Johnson & Son, Inc., Racine, Wis., has been named "Sales Promotion Executive of the Year" by the Sales Promotion Executives Association. The award was based in part on his promotion campaign for "Pledge", Johnson's aerosol wax product first introduced late last year.

Mr. Duncan was named to his present position in January 1958 after two years as assistant sales promotion manager for Johnson's household products. Before joining Johnson he was a free-lance promotion specialist, and prior to that was vice-president in charge of creative services at Leader Typesetting Co., Evanston, Ill.

•

Mojonnier Adds to Staff

The Mojonnier Associates Division of Kartridg-Pak Machine Co, Franklin Park, Ill., makers of aerosol packaging machinery, has announced two new appointments in the expansion of its service and engineering departments.

Grant V. Hoyt (at right) has joined the company as service manager and assistant to the general manager. He will be responsible for coordinating engineering, production and service departments. "He will also be available for consultation on sales matters where his seven years of aerosol experience will be especially valuable."

Mr. Hoyt's background includes two years in sales and plant management with Aerosol Research Co. and seven years with Alpha Engineering in charge of its Aerosol Division. Before that he spent seven years as plant manager of a creamery in his native state of Michigan.

William Prena has joined the engineering staff as a product engineer. He has been chief engineer with Aerosol Research Co. for two years. Previously he spent eight years with Consolidated Engineering Enterprises, the last three as chief engineer, and two years each with Alpha Engineering and the Eugene Dietzgen Co.

•

Gard Sets Up Food Co.

Gard Industries, Inc., Northfield, Ill., aerosol filler and marketer has established a separate subsidiary for the purpose of marketing a new line of pressurized foods. Called Gard Pressure Foods, Corp., the new company has introduced a carbon dioxide-powered soft drink and imitation fruit syrup concentrate called "Twink".

Available in seven flavors, the product is currently in distribution throughout the midwest. Cans are by the Can Division of Crown Cork and Seal Co. and valves by Precision.

Aerosol Clinic Program Set

The Aerosol Division of the Chemical Specialties Manufacturers Association late last month announced program details for its two one-day aerosol educational technical clinics, scheduled for October. The first of the clinics will be held Saturday, Oct. 17 at the Hotel McAlpin, New York; the second Oct. 24 at the LaSalle Hotel, Chicago. Each will run from 9 a.m. to 5 p.m., and will include basic and up-to-date technical information.

Speakers slated to address both the New York and Chicago clinics are Dr. Frank Mina (Lodes Aerosol Consultants), *Aerosol Principles;* Ralph A. Crane (DuPont) *History and Marketing;* Lloyd Flanner (General Chemical) *Propellants;* Walter A. Beard, Jr. (Risdon) *Valves;* J. J. Buchanan (Continental Can Co.) *Containers;* and D. C. Geary (Union Carbide) *Laboratory Equipment.*

A highlight of each program will be panels on formulation problems and commercial filling methods, featuring speakers from companies in the East and Midwest. The panel on formulation at the New York meeting will include: Phil Prussak (Associated Brands), D. H. Terry (Boyle-Midway), Fred Presant (Aerosol Techniques), and Milton Fowks (Powr-Pak). Speaking on commercial filling methods will be Anthony Iannacone (Fluid Chemical) and John Hart (Stalfort Pressure-Pak).

For the Chicago program the formulation panel will consist of Montfort Johnson (Peterson Filling), S. J. Campbell (Continental Filling), Morris Root (G. Barr), and R. L. Rhodes (Cook Chemical). The commercial filling methods panel will include Eugene Rose (Gene Rose Co.) and three others from the Chicago area.

Registration forms are available at the CSMA office.

The Magic Touch of

Aerosol Packaging

can give your products "feminine appeal"

If you have a woman's product, and want to gain entry to milady's chamber for it, consider the advantages of aerosol packaging. The convenience. The glamorous new container shapes, colors and textures. And the high state of development of the aerosol "art."

Aerosol packaging does seem to have a magic touch in helping to sell a woman's product. Hair sprays are still the largest selling single aerosol product group—115 million units in 1958*. Aerosol colognes and perfumes have proved phenomenal sellers—shooting up from 5.4 million units as recently as 1955 to 28 million units in 1958*. Aerosol hand lotions and creams are showing a similar increase, as are aerosol personal deodorants. If you have a product in any of these fields—or a related one—you should be considering aerosol packaging *right now!*

How General Chemical can help you

General Chemical manufactures the right propellant for every cosmetic aerosol need under its trade name "Genetron." These propellants can give your product exactly the right "push" your aerosol formulation requires.

As a leading supplier of aerosol propellants, we will be glad to help you get started in aerosols. We will supply you with market information and technical data. We can tell you about promising new types of aerosol formulations developed in our laboratories. And we can give you information on how contract fillers can help you, from test marketing right through to full commercial production. The fact is, through the use of contract fillers you can get into aerosols without investing a cent in special equipment or personnel!

Why not take advantage of these General Chemical services *now?* Just call or write.

*Estimated by Market Surveys Department, General Chemical Division, Allied Chemical Corporation.

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Putting the "push" in America's finest aerosols

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GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N. Y.

Aerosol Coffee to Nat. Dairy

"Tasti-Cup" liquid-instant coffee, the first such aerosol product to be produced, will be distributed by the Sheffield Farms Sealtest Division of National Dairy Corp., New York. The product will appear in the dairy cases of supermarkets and other retail outlets in the New York Metropolitan Area about Labor Day.

Supporting the introduction of the product (which will sell for $1.19 for an eight-ounce container) is an extensive advertising campaign, including spot television commercials, newspaper ads, and subway platform posters. The $150,000 advertising campaign is being developed by Hartman Advertising, New York.

According to Mortimer J. Kahan, president of Tasti-Cup Coffee Co., Brooklyn, his company has given National Dairy a one-year option to distribute the product in other markets than its own food specialty stores, and is hopeful of achieving national distribution in a few years' time. It is planned to market a larger size container for institutional and vending machine sales. At the same time a completely automatic food filling line capable of turning out 200 cans a minute, is currently being installed.

The product is packaged in Crown "Spra-tainers" and is equipped with Precision valves. Propellant is nitrogen.

•

FEA Appoints Technical Com.

A move toward standardization of aerosol components in Europe was made recently by the Federation of European Aerosol Associations with the announcement of the formation of a Technical Committee to study European Aerosol problems. Jean Ramis, of France, was named chairman of the committee; H. Lang, of Denmark, vice-chairman; and M. Galipaud, of France, to be secretary.

Projects for study by various sections of the commitee during the coming year include:

1. Standards for metal aerosol containers (IGA, Germany).
2. Standards for glass aerosol containers (CFA, France).
3. Dermatological and respiration studies of different propellants and propellant mixtures (CFA, France).

Other technical studies are now to be undertaken by the technical committees of the International Aerosol Association in Switzerland and the Finnish Aerosol Association in Finland.

•

Risdon Names West Coast Rep.

Smith Sales Co., a manufacturer's representative and development engineering firm with headquarters in Los

Bartman

Smith

Angeles, has been appointed Western sales agency for the Aerosol, Cosmetic and Metal Goods Divisions of the Risdon Manufacturing Co. The three divisions of Risdon manufacture aerosol valves, aerosol containers, cosmetic cases and contract metal goods.

Smith Sales, which is headed by Clyde L. Bartman and Roger C. Smith, will be the sales and service liaison between Risdon and cosmetic and pharmaceutical manufacturers in California, Arizona and Nevada.

Established in 1922 by A. C. Smith, father of one of the present co-owners, Smith Sales recently moved its headquarters from downtown Los Angeles to the New Grain Exchange Building at 972 S. Goodrich Blvd. in east Los Angeles. The firm also has an office at 785 Market Street, San Francisco, headed by James Farwell.

•

L&F Forms Health Bureau

Dr. Robert F. Prindle, director of research for Lehn & Fink Products Corp., New York, has been named to head his company's newly-formed Home Health Information Bureau. The new unit, sponsored by the firm's Lysol Division, will have as one of its chief functions the issuance of releases and bylined articles to disseminate information regarding the role of disinfection in combatting some of our current health problems.

Eyelet Consolidates Plants

The Eyelet Specialty Division of International Silver Co. last month completed the move of its entire U. S. manufacturing facilities to International's factory in Wallingford, Conn. Eyelet, which became a division of International Silver in January, 1958, is a producer of decorated metal aerosol containers and caps, most of them for the toilet goods field.

Eyelet Specialty was founded as a separate company in 1923 by the division's present general manager, Stephen J. Clark. Its main plant was in Waterbury, Conn., but it also had a vacuum metalizing operation at Port Jervis, N. Y. and another plant at Willimantic, Conn. All three operations will be consolidated at Wallingford.

•

John Tobin Joins Shulton

The appointment of John C. Tobin as a product manager, has been announced by Shulton, Inc., New York. He will plan and coordinate the marketing and merchandising program for the company's women's fragrance products.

Prior to joining Shulton, Inc. he was associated with C. J. LaRoche & Co., Inc. Before that he was with Gimbel Brothers and John Wanamaker's.

•

WARF Appoints Abrams

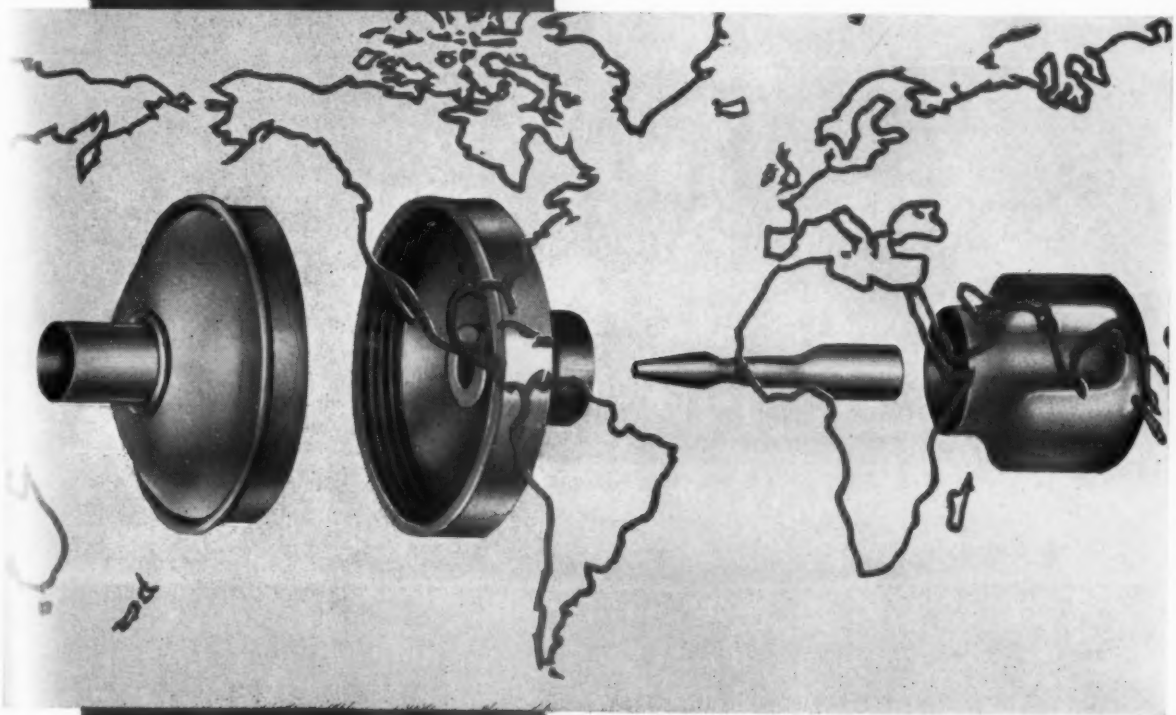
Joe Abrams has been appointed director of the newly-formed information office for the Wisconsin Alumni Research Foundation, Madison, Wis. The new office, part of the foundation's Licensing Division, was established to keep industry and the public acquainted with its expanding development and licensing activities. It will also maintain a continuing educational program to support the various inventions administered by WARF.

Mr. Abrams was previously information specialist with the Quartermaster Food and Container Institute for the Armed Forces. He subsequently served in both editorial and administrative posts in the pest control and commercial pesticide industries.

SAFCA successful

SUCCESS after success has met SAFCA valves (now made and *completely* serviced in six countries). Why? SAFCA valves are simple, efficient, utterly reliable. SAFCA valves pressure-fill incredibly fast, give 100% closure—proof against even the slightest leakage. All parts in contact with the product are plastic. All SAFCA valves mount in most containers—aluminum, tinplate, or glass: they are easy to operate and adapt to suit either highly viscous or highly volatile products.

SAFCA make valves for anyone interested in cheaper, better, methods of aerosol packaging. SAFCA package, too: and offer the fullest, most experienced, laboratory service.



SAFCA

VALVE COMPANIES

AND SAFCA ARE ALL OVER THE WORLD

in France:	Societe Anonyme Francaise de Conditionnements Aerosols— 7 Rue de Louvre—Paris
in Great Britain:	SAFCA Aerosol Valve Co. Packaging: Aerosol Packaging Co. Ltd. Milbanke Way, Bracknell, Berkshire
in Italy:	SAFCA Aerosol Italiana 10 via E Novellie—Bergamo
in Brazil:	Companhia Quimica Rhodia Brasileira Santo Andre, Sao Paulo
in Argentina:	SAFCA Aerosol SA Corrientes 424-Of-244—Buenos Aires
in Spain:	SAFCA Atompres 358-360 Independencia, Barcelona

van Ameringen-Haebler

A DIVISION OF INTERNATIONAL FLAVORS & FRAGRANCES INC.

DOES IT PLEASE THE *Lady?*

As a matter of fact, it *must* please the lady if an aerosol is to sell successfully. The very nature of a pressure-packed product makes its odor the *most* important factor in sales appeal and product acceptability.

VAH can help you to please the lady . . .

IN MATTERS OF CREATIVE FRAGRANCE

The VAH perfumers will create for you a distinctive fragrance that is not only a thing of true beauty in itself, but one that is ideally suited to the product, and to the market you intend to influence. You *know* it will be technically right and within the price range you determine. None is better able to serve your fragrance needs than VAH.

IN MATTERS OF AEROSOL TECHNIQUES

The VAH Aerosol Laboratory, excelling in facilities, ability and experience will be happy to guide you in the complete development of your aerosol product. VAH customers enjoy all these services:

- Product Development
- Formulation For Compatability
- New Product Evaluation
- Test Packaging
- Valve and Package Recommendations
- Filling Procedures
- Production Trouble Shooting

If you're thinking of a new aerosol product, think of VAH!

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Canadian Chemical Specialties Group Announces Program

THE Canadian Manufacturers of Chemical Specialties Association last month issued a program outline for its second annual meeting and conference. The 1959 meeting, under the direction of convention chairman G. H. Wood, will be held Nov. 2-4 at the Royal York Hotel, Toronto.

Accommodation has been provided for 250 delegates for a program which will include various aspects of research, development, production, and distribution of the products involved. The association comprises manufacturers of aerosols and insecticides, as well as automotive products, disinfecting and sanitizing chemicals, soaps, detergents and sanitary chemicals, and waxes and floor finishes.

One subject expected to come under considerable discussion at the meeting will be tariffs in trading relationships between Canada and the U.S. The group will review recent progress by tariff committees in the chemical industries, and the tariff situation in general.

Full information and convention registration forms can be obtained by writing F. L. McCarthy, CMCS, 7 Adelaide Street West, Suite 202, Toronto 1.

The program highlights for the aerosol part of the meeting will be as follows:

MONDAY, NOV. 2
- 9:00 a.m. Registration
- 10:00 a.m. Meeting of Board of Directors
- 2:30 p.m. Aerosol Division meeting to discuss programs for ensuing years
- 7:30 p.m. Hospitality Suite

TUESDAY, NOV. 3
- 9:00 a.m. Registration
- 10:00 a.m. Nomination and Election of Officers
- 11:00 a.m. Forum on Tariffs
- 12:30 p.m. Luncheon
- 2:15 p.m. Forum on Pesticides (chairman: A. H. Carter)
- 3:45 p.m. Forum on Aerosols and Automotives (Chairmen: G. S. Lang, G. H. Lederer)
- 6:00 p.m. Company Open House

WEDNESDAY, NOV. 4
- 10:30 a.m. Sales Presentation
- 12:30 p.m. Luncheon
- 2:15 p.m. Forum on Aerosols and Pesticides (Chairmen: A. H. Carter, G. S. Lang)
- 6:00 p.m. Cocktail Party
- 7:00 p.m. Banquet

Phillips Licenses MGK

Phillips Petroleum Co., Bartlesville, Okla., has announced a patent licensing agreement under which McLaughlin Gormley King Co., Minneapolis, will conduct the sales development and marketing of five insect repellent chemicals discovered by Phillips research. The chemicals are effective in repelling insects affecting man and animals.

■

Fritzsche Moves Phila. Office

Fritzsche Brothers, Inc., New York essential oil and chemical firm has announced that its Philadelphia office, formerly located at 12 South 12th Street has been moved to 7 Wynnewood Road, Wynnewood, Pa. The telephone number of the new office will be TRinity 8-7030. James H. Shumaker, manager and Robert Hughes represent Fritzsche Brothers in the Philadelphia area.

■

Risdon Appoints Peasco

Andrew C. E. Peasco, Midwest sales representative of The Risdon Manufacturing Co., Naugatuck, Conn. since 1947, has been appointed industrial sales manager. In his new position, he will coordinate sales of Risdon products—metal components, wire goods and chain—to industrial customers. His headquarters will be in Naugatuck.

A native of Southington, Conn., he graduated from Yale College in 1939 with a major in economics. During World War II, Mr. Peasco was an Army Air Force captain in the office of the assistant chief of air staff for materiel. Before the war he was associated with Connecticut General Life Insurance Co. and the Dictaphone Corp.

■

A. H. Wirz Appoints Heine

G. Edmund Heine has been appointed New York sales representative for A. H. Wirz, Inc., Chester, Pa., manufacturers of PVC and collapsible metal tubes, plastic containers, and aluminum aerosols. As a Wirz sales representative, he will be associated with Virgil L. Dickey, who has represented Wirz in the New York City area since 1957. The new Wirz regional office is now located at 475 Fifth Avenue.

Prior to joining Wirz, Mr. Heine held several positions in related industries, including seven years with Flyndustries, Inc., packaging engineers, of which he was executive vice-president.

●

Pyrethrum From U. S. Reserve

The General Services Administration is currently negotiating with pyrethrum processors for the sale of some 66,000 pounds of extract from the national stockpile. This marks the third time that the government has released pyrethrum from the national stockpile since 1956.

Industry sources report that the government offering will probably be readily absorbed and will not disrupt the market. Pyrethrum, an ingredient in most aerosol insecticides, is imported into this country from Kenya, Belgian Congo, and Ecuador. Development of allethrin as a substitute material was apparently what prompted the latest cutback of the government reserve. The extract is being offered at the prevailing market price over the following 12 months.

■

Sherman Retires at Colgate

Stuart Sherman has resigned his post as corporate vice-president marketing, of the Colgate-Palmolive Co. because of a serious eye ailment, the company's headquarters in New York announced early last month. John L. Bricker, vice-president, marketing planning, has been named to succeed Mr. Sherman.

Spectacular in selling perfumes
Available for profitable new applications

TOUCH-N-SPRAY
TRADEMARK

Purse-size aerosol

Get that important competitive edge with this glamorous dispenser... multiply sales by having your customers carry and use your product away from home!!

Refillable—long cap to prevent accidental activation—can be printed with your own designs—available in highly polished brass cap, plastic or low-cost coated paper tube.

Is Your Product on This List?

Nasal Sprays
Inhalants
Topical Antibiotics
Prescription items
Burn Preparations
Poison Ivy Remedies
Spray Bandages
Mouth Washes
Deodorants
Talcum Sprays
Hair Sprays
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and of course—*Perfumes!*

Then You Can Use Touch-N-Spray Profitably

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NOW— THE FIRST GLASS ENCLOSED SANITARY HIGH SPEED LINE FOR PRESSURIZED FOOD PRODUCTS . . .

An all-stainless-steel line for loading pressurized food products in aerosol containers under sanitary conditions is now in operation at Stalfort's modern Pressure-Pak plant. Completely segregated in a glass-enclosed area, this line is dismantled and sterilized before and after each production day. Any food product suitable for aerosol dispensing, even powder, can be economically handled in this area.

Three other high-speed lines are available for loading metal or glass aerosol containers that do not require completely sanitary conditions.

Stalfort, the country's largest filler, can also load liquids, waxes, or creams in conventional glass or metal containers.

JOHN C. STALFORT & SONS, INC.

Established in 1868

321 W. Pratt Street, Baltimore 1, Md.

Senate Shelves Fair Trade

Fair trade legislation aimed at taking retail pricing responsibilities away from the retailer and giving them to the marketer has apparently been shelved for the current session of the Senate. The Senate Interstate Commerce Committee, which had been considering the bill for several months, last month decided to take no action on the measure this year. The bill received similar treatment last year.

Meanwhile, the companion bill under consideration by the House Interstate Commerce Committee has been reported for passage and is awaiting action by the Rules Committee for clearance for floor consideration.

Though no specific reason was given by the Senate committee for its action, it is reliably reported that the bill was shelved to avoid a bitter floor fight that could have endangered other important legislation. The bill has drawn fire from the Federal Trade Commission, the Department of Justice, the USDA and other government agencies.

•

YPO Elects Gene Rose

The Young Presidents' Organization last month announced that it has elected Eugene L. Rose, president of Gene Rose Co., Chicago custom filler, to membership. To belong to the YPO, a man must have risen to the presidency of a sizeable corporation while still in his twenties or thirties. The average company employs about 300 people and does $6 million gross business each year. Activities of the organization include seminars at the leading graduate business schools. Also members from the aerosol industry are H. R. Shepherd, of Aerosol Techniques, Inc.; John de Elorza, of Old Empire, Inc., and Gordon Lang, of Connecticut Chemicals of Canada, Ltd.

•

Peake Joins Carter Products

Kirby Peake has joined Carter Products, New York, as administrative vice-president. He had been president of the Vick Products Division of Vick Chemical Co., a post in which he was succeeded by R. D. Waters, a former Vick vice-president and president of Hess & Clark, Vick's animal health subsidiary.

•

Velsicol Names R. S. Suckling

R. Paul Suckling has been appointed Canadian representative for Velsicol International Corp., C. A., suppliers of pesticidal chemicals. His territory will include all of Canada, with headquarters at 3660 Peel Street, Montreal. Primary responsibilities will be sales and technical service.

•

Contest Blanks Available

The Eighth Annual Aerosol Package Contest, to select the best aerosol packages of the year, will be held in conjunction with the 46th annual meeting of the Chemical Specialties Manufacturers Association at the Mayflower Hotel, Washington, Dec. 7-9.

There will be several classes of entries and the contest is open without fee to any brand owner or marketer of aerosols and pressurized packages. Awards will be made on the basis of general sales appeal of the packages.

Rules of the contest and entry blanks will be sent upon request to the Chemical Specialties Manufacturers Association, Aerosol Awards Committee, 50 East 41st Street, New York, 17, N. Y.

•

Hallowell to U.S.I. Post

Jesse H. Hallowell has been named Boston sales division manager for U. S. Industrial Chemicals Co., Division of National Distillers and Chemical Corp. New York. He replaces Edward C. Richardson, who will become U.S.I. Manager of Chicago Sales.

Mr. Hallowell was a salesman out of the company's Chicago office at the time of his new appointment. Prior to this he had been located at the U.S.I. Tuscola, Illinois technical service laboratory, where he started his employment with U.S.I. in 1953. He is a graduate of the Eastern Illinois State College.

Rexall Names New VP's

The Rexall Drug Co. Division of the Rexall Drug and Chemical Co., last month announced that M. J. Erickson, formerly vice-president, marketing, has been named to the newly created post of vice-president and general manager. In this capacity he will be responsible for the administration of all operations of the Rexall Drug Co.

Edwin L. Ramsey, Jr., formerly vice-president, new products division, will assume Mr. Erickson's former duties as vice-president, marketing. Dr. Henry D. Rudzki replaces Mr. Ramsey as vice-president, new products division, and will report to Mr. Ramsey.

Under the new organizational plan others working under Mr. Erickson will be: Arch T. Carithers, vice-president, chain store region; George H. Davis, vice-president, eastern sales region; Robert Garrison, vice-president, western sales region, which now includes all the area west of the Mississippi; Edwin H. Vick, vice-president of franchises and coordinator of sales; J. T. Rux, director of warehousing; Anthony Sand, controller.

•

Dairy Marketing Seminar

A roundtable discussion on packaging and merchandising dairy products and allied foods will highlight a special meeting for professional members of the Packaging Institute, to be held Oct. 1 at the Sheraton-Blackstone Hotel, Chicago. Panel moderator will be L. J. Hayhurst of National Dairy Products Corp.

•

Toni Names J. A. Torrens

James A. Torrens has been named national field sales manager for The Toni, Co., a division of the Gillette Co., Chicago. Mr. Torrens, who has been with Toni since 1946, has served in a number of positions in the sales department since that time. Previous to that, he was head of the priority and price control department, Farm Service Division, General Mills. Earlier, he was a branch manager for the Equitable Loan Association.

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You always know where your shipment is when you ship by KLM Air Cargo service, because KLM's world-wide system of communications can put a finger on it at any time. KLM teletypes your manifest to the point of destination. Reception of your shipment is arranged hours before its arrival. And from the time it's in hustling KLM hands until delivery, your cargo — bulky or fragile — gets velvet-glove treatment by experts. Service and skill without delay are KLM traditions. Your KLM air cargo is never out of expert hands.

KLM flies direct from New York City, Houston, Miami and Montreal to points the world over.

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Peerless Names Two VP's

Peerless Tube Co. of Bloomfield, N. J. a leading producer of aluminum aerosol containers, has announced John J. Palmer

Rubino

Palmer

and Frank J. Rubino have been made vice-presidents of sales of the company.

Mr. Palmer has been in the sales department of Peerless for eight years. He is a member of the Cosmetic Industry Buyers and Suppliers.

Mr. Rubino joined Peerless in 1948 and is a member of the Cosmetic Industry Buyers and Suppliers and the Packaging Institute.

•

Velsicol Expands Sales Staff

A major expansion of Velsicol Chemical Corporation's Chlordane insecticide marketing staff was announced last month. Two new marketing specialists have been added to concentrate on dealer service and sales promotion at the retail level.

New men on the Chlordane marketing staff are Edward Michael O'Leary and Philip M. Olson. Mr. O'Leary is a graduate of the University of Minnesota. Before joining Velsicol, he represented the Vulti-Clean Co. in Michigan, Indiana, and Kentucky. Prior to that he was marketing and sales promotion representative for the Carnation Co., working in central Iowa. With Velsicol, Mr. O'Leary will operate in the Midwest.

Mr. Olson is a graduate of New York University and a member of the Sales Association and Management Club. Prior to joining Velsicol, he was a sales and customer service representative for Southwest Potash Corp., a division of American Metal Climax. He will be responsible for the Eastern area, and his headquarters will be the Velsicol branch office in New York City.

New responsibilities have been given to Richard Noonan, Chlordane marketing specialist previously operating in the territory between the seaboard states and the middle west. Noonan has been transferred to the Western Division office at Berkeley, California.

•

Meier Forms PR Firm

Edward J. Meier, onetime editor of *Aerosol Age*, and recent director of public relations and publicity at Standard Steel Corp., Los Angeles, has opened his own public relations firm at 1837 N. Grammercy Place, P.O. Box 2534, Terminal Annex, Los Angeles 54. His firm will offer public relations programs for the aerosol and other chemical industries on the West Coast. Mr. Meier was editor of *Aerosol Age* when it was first founded in 1956.

West to Carbide Post

Union Carbide Chemicals Co. Division of Union Carbide Corp., New York, has appointed Robert D. West to the position of aerosol formulation chemist. He will formulate and test new aerosol products for Carbide's "Ucon" propellant customers.

Following his graduation from the University of Pittsburgh, where he received a bachelor of science degree in chemistry, Mr. West was employed in product research by Purex Corp., Ltd., Southgate, Calif. He was later engaged by Reed Research Corp., Shelton, Conn., to formulate and test aerosol products.

Union Carbide began to produce Ucon fluorocarbons late last year at a new facility at Institute, W. Va., with a capacity of 50 million pounds per year.

Program Set for 21st National Packaging Forum

TWELVE seminars head the list of features for the 21st National Packaging Forum of the Packaging Institute, to be held Nov. 16-18 at the Statler-Hilton Hotel, New York. Plans for the forthcoming meeting were announced last month by Roy W. Abling of Merck Sharpe & Dohme Div. of Merck & Co., chairman of the Institute's forum plans committee.

Other major events connected with the 21st Forum include the awarding of the Packaging Institute's annual citations to the company and the individual who have made the most significant achievements in packaging technology during the past year; the annual business meeting and election of officers of the Packaging Institute, and special speakers for the daily luncheon programs and awards dinner of Tuesday evening, Nov. 17.

Daily registration rates for Packaging Institute members are $23 each for Monday and Tuesday and $18 for Wednesday, with a special $60 rate offered for the three-day combination. Registration rates for non-members are $28 each for Monday and Tuesday, and $23 for Wednesday, with a $75 rate for all three days.

The Forum program will get under way Monday morning with Packaging Institute's annual business meeting and election of officers. A presentation, centered on the do's and don'ts of supermarket merchandising and warehousing, will follow at 11 a.m. Next will come the initial luncheon program, featuring a noted authority in the field of packaging.

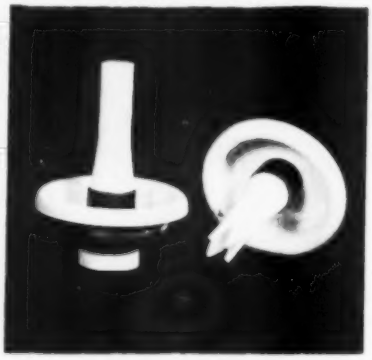
The first three concurrent seminars are slated for Monday afternoon. Subjects and chairmen will be "Package Marketing," Delbert Johnson, Continental Can Co.; "Research and Development," Paul B. Reuman, Continental Baking Co., and "Safety of Packaging Materials" (relating mainly to the 1958 Food Additives Amendment to the U. S. Food, Drug and Cosmetic Act), John Clay, National Starch and Chemical Corp

Tuesday's agenda will be highlighted by three concurrent seminars of high interest which will include both morning and afternoon sessions. They will be "Drug and Pharmaceutical Packaging," Richard J. Hennessy, Lederle Laboratories Div. of American Cyanamid Co.; and "Production Line and Machinery," Arthur R. Schaefer, New Jersey Machine Corp.

The annual awards of the Packaging Institute for major advances in the field of packaging will be given at the awards dinner on Tuesday evening.

Equipment—Processes—Bulletins—

New Foam-Type Valve



The introduction of a new foamy-type aerosol valve has been announced by Clinton Valves, Inc., 35135 Groesbeck Highway, Mt. Clemens, Michigan.

The valve has been field tested prior to its introduction to the industry. According to the manufacturer it is able to retain gas pressure in the container until after all of the product has been dispensed. This is accomplished by maintaining close tolerances and precision manufacturing procedures.

•

Antara PVP Booklet

Antara Chemicals, a Sales Division of General Aniline & Film Corporation, has published a booklet describing the effectiveness of polyvinylpyrrolidone (PVP) in reducing the toxicity and sensitivity problems inherent in phenols and other compounds. PVP modifies the physiological properties of many compounds by forming molecular adducts with them. Hence it may permit certain chemicals to be used in applications for which they would otherwise be too toxic, irritating or skin fatiguing.

PVP itself is reported to be essentially non-toxic. It is a polymer which is soluble in water and an unusual number of organic solvents. The polymer is an effective protective colloid and emulsion stabilizer, film former, and solubilizing agent.

The experimental data summarized in the booklet shows how PVP tempers the effect of certain poisons, drugs, detergents, and germicides, and points the way for its use in industrial preservatives, cosmetic preparations, disinfectants, weed killers, and insecticides. The eight-page booklet (TA-52) is available from Antara Chemicals, 435 Hudson Street, New York 14, New York.

•

New Synthetic Ketone

A new development in the field of perfume chemistry has just been announced by Givaudan-Delawanna, Inc., New York. Achieved as a result of the company's research program, this new, pure aromatic chemical, is to be offered under the trademark, "Nerone."

Nerone, a synthetic ketone, is a new type of aromatic chemical with a fresh, leafy odor resembling petitgrain oil. It is said to be exceptionally stable and strong in soaps and detergents, and can contribute its excellent properties to petitgrain, bergamot, lavender, neroli, and geranium type compositions.

Samples and technical information are available from Givaudan-Delawanna, Inc., 321 West 44th Street, New York 36.

•

Flexographic Label Printer

A small printing unit which prints and die cuts on pressure sensitive label paper, or scores cuts on gum, heat seal, or plain paper, has been announced by Sohn Manufacturing Co., P.O. Box 87, Plymouth, Wisc. It will print labels four by five inches at a rate of 6,000 per hour. Printer, described as the "world's smallest", weighs only 40 pounds.

New Can Depalletizers

Two new empty can depalletizing machines which operate at normal line speeds and handle all types of round cans have been designed by the Continental Can Company's Metal R & D Laboratory's Equipment Development Department. They are available through the Company's Metal Division Sales Department, N. Y.

Called the "Manual (464-ECD-2)" and the "Standard (465-ECD-1)" depalletizers, both were developed to reduce the packers costs in handling empty cans. They are so designed that new semi-automatic features may be added in the future as they become available.

The "Manual" unit will depalletize cans at speeds up to 700 cans per minute for the 300 x 407 size, fully utilizing the operator who manually sweeps the layers of cans into the waterfall blender. It is tailored to keep capital investment at a minimum while providing simple design, rugged, compact construction and safe operation.

Its features include: a single, sure pallet stop to prevent pallet from riding out from under can load when fed into machine and the ability to change the direction of pallet infeed and can discharge.

The "Standard" unit is the more highly mechanized of the two, with can handling speeds increased up to 900 cans per minute for the 300 x 407 size and a reduction in operator utilization. Among its advantages are a powered sweep arm and a can transfer (temporary storage) belt.

The sweep arm assembly is located at and is limited in height to the tin line, affording added visibility and increased safety to personnel over other machines. Emergency stop action can shut off the sweep arm regardless of its position. The sweep arm stops gently at each end of its travel and automatically retracts when the control is returned to neutral. The pallet hoist is interlocked with the sweep arm so that the hoist will not raise unless the sweep arm is retracted, precluding serious machine damage.

Easy to sell—easy to use:

Pressure-packed instant coffee

Another new Crown pressure-packed product hits the retail market! Instant coffee, nitrogen-propelled, proves—if proof is needed—the versatility of the exciting, customer-catching pressure can. Crown, leading pioneer in aerosol containers, can give you the benefit of unequalled experience in the field. May we have the opportunity to discuss, or provide you with more details?

CROWN

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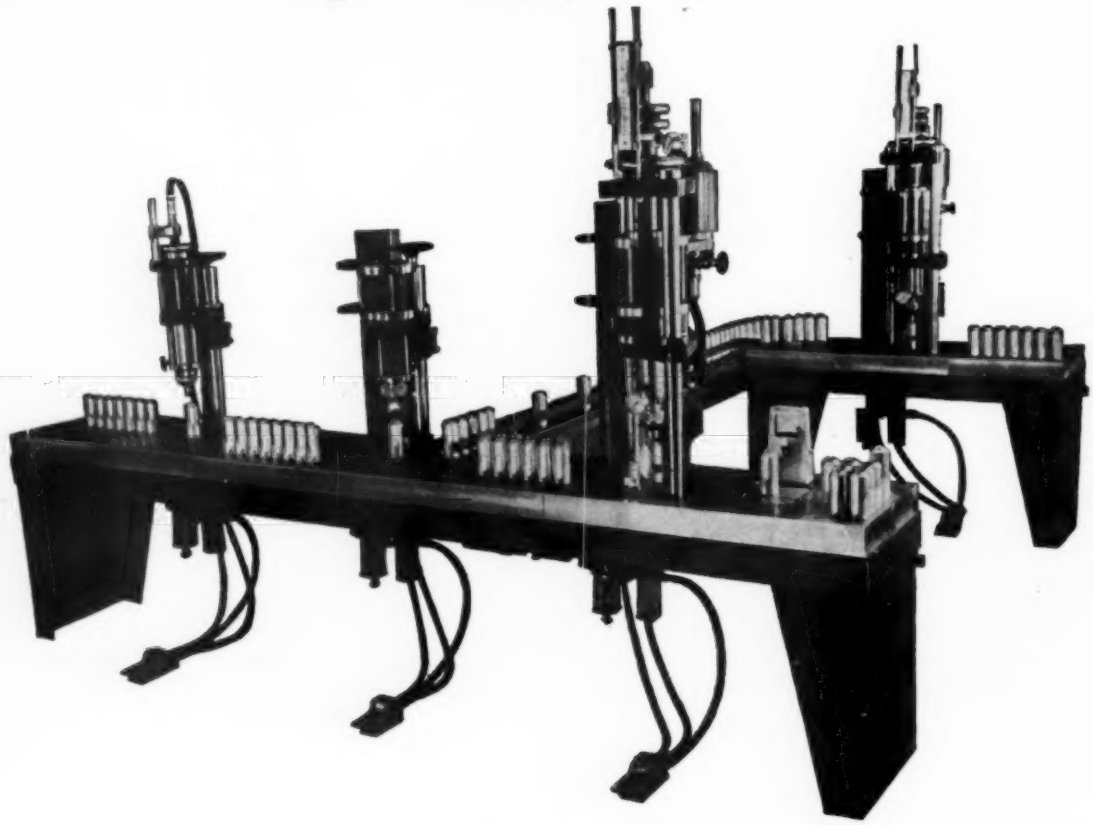
druk pak inc.

Supplying internationally for aerosols.



druk pak

Manufacturer:

Johann Waldherr,
Machine Builder
Kafertaler Str. 162,
Manneheim, Germany

Sales Representatives:

druk-pak, inc.,
Merkur Str. 36,
Zurich 7, Switzerland

A WM-DP semi-automatic Pressure Filling Unit with Product Filler and Valve Clincher serving two Propellant Charges. These sturdy and efficient machines cover your loading requirements, large or small. Some details on the

Propellant Charger WM-DP 340:

Stainless Charging Cylinder, adjustable capacity— 5 to 375 g.

Charge Tolerance, under 100 g, fractional—over ± 1 g

Operating Pressure, according to valve 6 to 8 Atü.

Gas Loss, less than 1%

Capacity: The above line with two Propellant, Chargers does over 10,000 twelve ounce units per 8 hr. day. In six ounce units, according to valve and charge, 14 to 17 per minute.

Other WM-DP Products:

Magnetic Chain Link and Tank Type Test Baths, Conveyor Lines and Tracks, Mufflers and Fast Exhaust Units, Propellant Pumps, Purgers, Complete Line of Laboratory Equipment, etc.

Carbide Solvents Booklet

A new 40-page booklet, describing the properties and uses of "Cellosolve" and "Carbitol" glycol-ether solvents, has just been published by Union Carbide Chemicals Co. Division of Union Carbide Corp., New York.

The booklet contains data for 14 glycol-ether solvents, including physical properties, chemical derivatives, end-use possibilities, storage and handling, physiological properties, specification limits, and test methods. A detailed bibliography and reference section is included.

The glycol-ethers are miscible with most liquids, and are mildodored solvents for resins, oils, waxes, fats, dyestuffs, and other organic materials. They are used as solvents in lacquers, enamels, and non-grain-raising wood stains. The glycol-ethers have been established as dye solvents in the textile, leather, and printing industries, as solvents for insecticides and herbicides, and as diluents for hydraulic brake fluids. They are used in "soluble" oils, specialty cleaners, and other soap-hydrocarbon systems.

As chemical intermediates, the glycol-ethers can be esterified, etherified, chlorinated, or otherwise modified at the reactive hydroxyl group.

•

Aerosols for Tobacco Moths

Pyrethrum mists and aerosols are effective in killing tobacco moths in tobacco warehouses, but they control cigarette beetles only partially, according to a research report issued recently by the U.S. Department of Agriculture.

Researchers for USDA's Agricultural Marketing Service found that neither pyrethrum mists nor aerosols are as effective as fumigation, but in loosely constructed warehouses where fumigation is not effective they offer an alternate control method.

In treating stored tobacco, only certain types of oil should be used as diluents, so that there will be no odor or greasy deposits, the researchers warned. Weekly applications will control the tobacco moth, but daily applications may be necessary to obtain a degree of cigarette beetle control. Many of the cigarette beetles stay inside the tobacco, making it difficult to reach them with insecticides.

A copy of the report, Pyrethrum Mists and Aerosols for Control of Insects in Tobacco Warehouses," Marketing Research Report No. 334, may be obtained from the Office of Information, U. S. Department of Agriculture, Washington 25, D.C.

•

New Plastic Stack Cap

Gilbert Plastics, Inc., Kenilworth, N. J. has introduced a new aerosol plastic stack cap to cover and protect all nozzle styles of fabricated 211 cans. Called "301" the new cap is said to be unbreakable. It fits over the outside rim of 211 cans with positive snap-fit, keeps nozzles dirt-free, is easy to stack and also adds height to enhance the packaged product.

Molded of high density polyethylene, the "Gilbert 301" has a vibrant color and an attractive sheen. Companion to the "Gilbert 201," which fits all fabricated 202 aerosol cans, the new cap fulfills the need of a plastic closure for large size cans.

The unbreakable feature of the new "301" adds maximum protection to all nozzle styles of 211 cans. It comes in a variety of standard colors, and special colors can be matched to specifications.

Further information and samples can be obtained by writing to the company at Boright Avenue, Kenilworth, N. J.

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a new dimension in

private label and contract AEROSOL PACKAGING

using inert compressed gases & all conventional propellents

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pace for PRODUCTION RUNS

pace for SAMPLE RUNS

pace for PRODUCT FORMULATIONS

pace for PACKAGE DESIGN

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over 100 use-tested formulas on hand

pace incorporated

P. O. BOX 206 • WILMINGTON 99, DEL.

EAST 8-4151

write for list of formulas and other data

New Swiss Propellant Pump

A new piston pump designed especially for the handling of fluorinated hydrocarbons and other liquefied gases has been developed by Druk Pak AG, 36 Merkurstrasse, Zurich, Switzerland. Called the "WM-DP 385," the unit is said to solve the twin problems of maintaining constant liquefaction and emptying of bulk storage tanks safely.

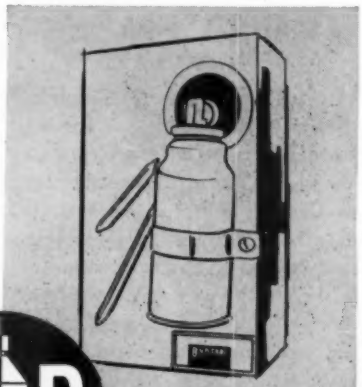
The operating cylinder is separate from the pumping cylinder, and a common rod connects the pistons in the two cylinders. This is to prevent condensates or other foreign matter from entering the closed liquid circuit. An automatic air valve governs the movement of the piston in the operating cylinder and consequently the suction and pumping stroke of the piston. The pump's speed is governed by demand. It can be mounted as close as desired to bulk storage tanks.

•

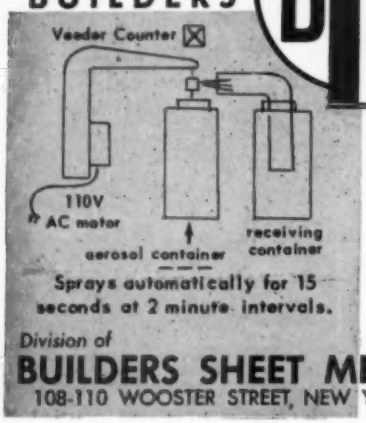
Gold-Colored Overcaps

A new line of gold-coated plastic overcaps has been introduced by the Walter Frank Organization, 4100 Warren Ave., Hillside, Ill. Shining gold in appearance, the caps come in stippled top, oversize stacking, and conventional metal cap models. A new price list and samples are available by writing directly to the company.

AEROSOL DISCHARGE RATE DETERMINATION APPARATUS



BUILDERS B P PRODUCTS



Sprays automatically for 15 seconds at 2 minute intervals.

You should know the discharge rate for each valve and actuator you are considering.

If the product is used up too quickly or too slowly due to an improper valve or actuator, the consumer may not re order. Know how many times the actuator will be pushed to expel the contents.

Also use as an automatic spray unit for checking odorants, deodorizers, insecticides, etc.

Operate all tests with same temperature and number of actuations.

Weigh can before and after to give amount used by each valve or actuator tested.

Model with Electric Counter $56.50

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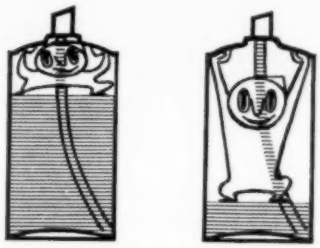
Aerosol Educational Folder



This diagram, showing how the propellant pushes out the product, is one of several ingenious drawings in the new consumer education booklet issued by Interessen-Gemeinschaft Aerosole (the German Aerosol Association). The main theme centers around the characterization of "Aerosol-Kobold Quirl".

The booklet, in two colors, is aimed at educating consumers and potential aerosol marketers in both the mechanics and the general appeal of aerosol packaging.

•

Nitrogen Cosmetic Bulletin

A new illustrated bulletin on nitrogen-pressurized cosmetic emulsions, complete with photographs and sample formulations, has been issued by the Chemicals Division of the Atlas Powder Co., Wilmington 99, Del. This particular publication is one of a series of quarterly bulletins from the company's Product Development Department. In the new bulletin is a discussion of important considerations in formulating nitrogen cosmetics, including paragraphs on shelf-life testing, corrosion, viscosity, leakage, and accidental discharge.

•

Epoxy Plant in Production

Union Carbide Plastic Company's new liquid epoxy resin plant at Marietta, Ohio, has gone into production. The plant has a rated capacity of 15 million pounds annually and will produce epoxies for such end uses as protective coatings, reinforced plastics, laminating materials, adhesives, etc.

Concurrent with the plant opening announcement, Union Carbide Plastics Company, a division of Union Carbide Corp., announced the availability of a new line of epoxy resins.

You should keep women much on your mind. They like the very fine fragrances. You're giving them the fine fragrances when you perfume fine products with traditional good scents from Norda.
Rely on great skills—from Norda. Expect even greater to come from continuous research and development in quality, creator of confidence.
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British Develop Aerosol for New Industrial Use

AN aerosol package was recently introduced for a new and highly specialized industrial use.

The somewhat ominous-sounding term "non-destructive testing" covers a number of methods for the testing of materials and the finished articles which are made from them. Even the suppliers of materials used in such methods admit that choice of the term wasn't an entirely fortunate one.

"Non-destructive testing" has particular significance in the construction of such heavy industrial equipment as large machinery, railways, ships, bridges, military armaments, etc. Over the past 50 years there has been an enormous increase in the stresses to which most of these products are subjected, mainly because of increase in speed and weight. Along with these factors is a desire to reduce the weight.

All three of these factors combined have brought about a vast increase in stress-per-unit area or unit-volume of material used, coupled with the use of such lighter material as aluminum and other light alloys, plastics, etc. Because of all these factors, the structural engineer has had to evolve methods which will give him warning of possible structural defects *before* any actual trouble develops.

These methods consist of the application of physical materials to the testing of finished products both *before* use or assembly and at regular intervals afterwards. It is to these methods that the name "non-destructive" testing has been applied.

After much research an aerosol method of dispensing these materials has been developed by The Magnaflux Co., a subsidiary of Solus-Schall, Ltd., London, England. The major ingredients in the product, which is called "Spotcheck," are a penetrant and developer. One version of the product fluoresces under ultra-violet light to reveal the fault or crack. Another simply works chemically to penetrate the crack or other flaw and make it visible to the inspector. Both versions can be used on almost all construction materials, whether ferrous, non-ferrous, or even non-metallic (such as plastic).

The aerosol is expected to make a valuable addition to magnetic, x-ray, ultrasonic, and other means of "non-destructive testing."

•

Hair Product Potential Good

The potential market for hair care products continues to be excellent, the 12th annual hair care survey released last month by John H. Breck, Inc., Springfield, Mass., indicates. Four of the five women questioned in the survey described themselves as having one or more hair problems.

Survey figures supporting this existence of a continuing vast market for hair care preparations indicate that one out of three women complain of dandruff and manageability problems, while three out of every ten women claim to have hair that is too dry. Other hair problems reported included hair too oily, hair lacking lustre, and falling hair.

Seven out of ten women questioned during the survey admitted to having some degree of gray in the natural color of their hair, and 28% of all women interviewed had some type of hair coloring treatments during the period covered by the Breck Survey. Such treatments were predominantly the "rinse" type, however.

Two out of three women described their hair as straight, and less than one out of four claimed to have naturally blonde hair.

The continued decline in popularity of home permanents was proved by the survey which reported that while 33% of the women interviewed used one in 1957, only 27% used one in 1958.

Edward J. Breck, president of the firm conducting the survey, stated that he and his firm view the future business potential for hair care preparations with great optimism. However, he pointed out that the greatest advances would be made, in his opinion, by preparations that afford consumers real "convenience" in terms of ease of use and time-savings, such as aerosol packages.

"Cheesecake" Used for Aerosol Publicity Campaign

This photograph of lovely New York model Pat Parker has been appearing — for the past month—on the news pages of newspapers all over the U.S. Source of the picture, which illustrates the consumer appeal of aerosol sun - tan preparations, is this year's Aerosol Publicity Program, sponsored by the Aerosol Division of the Chemical Specialties Manufacturers Association. Caption was headlined "The Lady's Not for Burning."

W. G. Delmore Reports on European Developments

WILLIAM G. DELMORE, vice-president of Precision Valve International S. A. Zurich, Switzerland, concluded a month's visit to the United States early in August, sailing for Europe August 7th, on the S.S. America. While in the United States he conferred with the principals of Precision Valve Corp., Yonkers, New York, and with others concerned with sale of Precision valves in the export market.

Precision International recently set up an aerosol research and quality control laboratory (Chemtech A. G.) in Zurich (See *Aerosol Age*, March, 1959, Page 28). This laboratory serves Precision licensees as well as users of Precision valves in all parts of the world. One of the first projects

W. G. Delmore, photographed delivering a paper to a recent IAA meeting

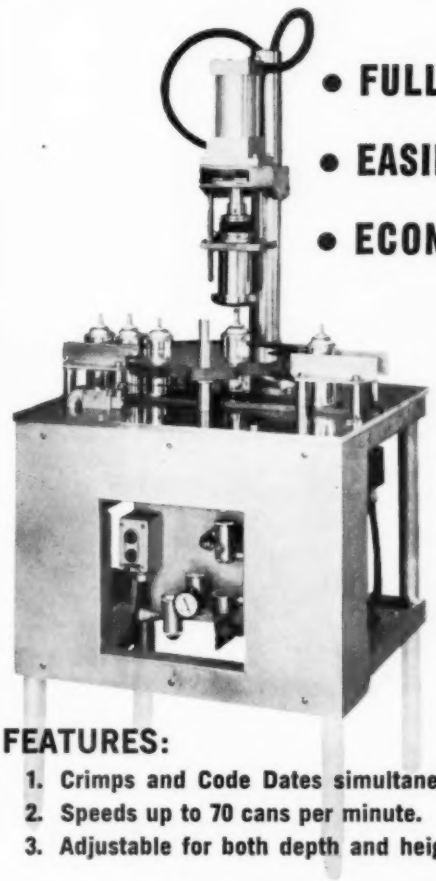
completed at the laboratory was a study of clinching of aerosol containers. This study, by Dr. H. Meuresch, is carried in full in this issue of *Aerosol Age*. (See page 24.)

Another project of Precision Valve International soon to be announced, is a new house organ to be published under the name, *Push Button World*. This will be mailed to a large list of recipients, to supplement PVI's periodic bulletin service on matters, technical and otherwise, of interest to those in the aerosol trade.

Mr. Delmore indicated that PVI will again be an exhibitor at the next Interpak, international packaging show, which will be held in Duesseldorf in the spring of 1960. Their exhibit will include a miniature Peet-Grady insecticide testing chamber. At the show held in early 1958, Precision Valve International made aerosol history by being one of the first firms to serve aerosol coffee at a public exhibition of this kind.

Queried on the European market for aerosols, Mr. Delmore predicted that volume probably would reach 80 million units this year. He observed that, based on population, the industry has not yet reached the volume which could have been anticipated in such countries as Sweden, Spain and Belgium. Belgium packages the largest volume of nitrogen-propelled tooth paste on the continent, but as far as aerosols generally go consumption is sharply lower than in Holland where aerosols have moved rapidly up to substantial sales totals. He remarked that Finland has imported a rather surprising quantity of aerosol components in relation to the small size of the country,—enough to indicate an annual aerosol pack of a million

NEW AEROSOL CAN CRIMPERS



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FEATURES:

1. Crimps and Code Dates simultaneously.
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3. Adjustable for both depth and height of crimp desired.

Many other features. Write for free literature on this machine and other aerosol equipment: Adjustable Crimping Heads • Valve Feeders • Code Daters • Gassers and Shakers • Laboratory • Hand Operated • High Speed Automatic Units.

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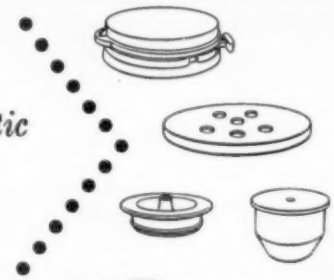
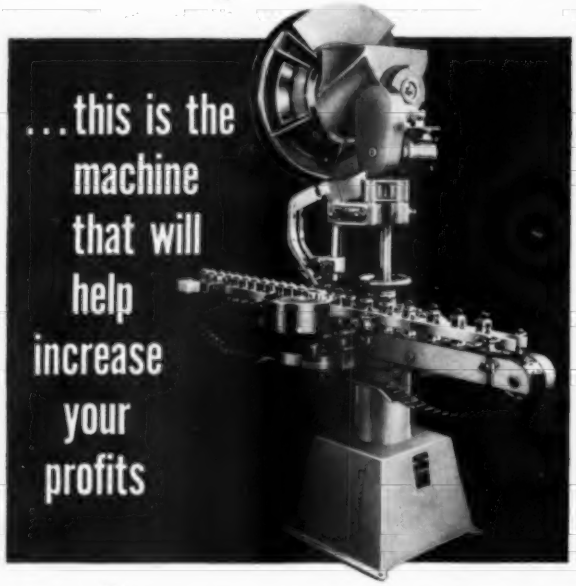
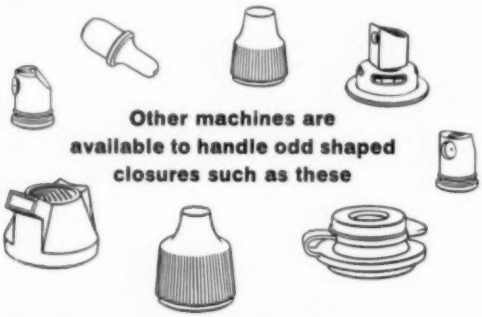
If you are using plastic fitments like these



...this is the machine that will help increase your profits



IT'S the Consolidated H-O-F Capper, and you can use it for applying odd as well as conventional shapes of *aerosol* caps. You'll get automatic sorting, too. And you'll find this machine fits into any *aerosol* filling line. Speeds from 60 to 250 caps per minute with ready changeover from one size container to another. Write for complete details.



Other machines are available to handle odd shaped closures such as these

Consult our packaging specialists for complete information about the H-O-F Capper, as well as other Consolidated machines, for the drug and cosmetic fields.

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units. Since the population of Finland is only about 3 million, the belief is rather widespread that a high proportion of the Finnish imports may be re-exported.

Mr. Delmore reported that aerosol fillers are starting operations in all sections of the globe. There now is one filler in Prague, one in Cairo, two in Nairobi, five or six in the Union of South Africa, six in Mexico, at least four or five in Cuba, one in Peru, one in Chile, one in South Korea and others in many remote areas. Mexico will do about a million units this year, he predicted, while volume in South America should reach two million. The Latin American and South American markets, he believes, are right on the verge of a major expansion.

•

IF&F Consolidates Branch

International Flavors & Fragrances Inc., New York, announced last month consolidation of its domestic headquarters for ALVA and P&S flavors at its Elizabeth, N. J. location. Flavor manufacturing operations will continue as before at Teterboro and Union Beach and Elizabeth, N. J.

Dana Names Meunier VP

Maurice A. Meunier has been named vice-president of Dana Perfumes Corp. New York. He has been with the company since 1942 in the capacity of chief chemist.

Born in Paris and educated at the Sorbonne, Mr. Meunier came to the U. S. in 1925. His long association with the fragrance industry includes 12 years as chief perfumer for Colgate-Palmolive. During the war he served as an officer in the French Army, having been decorated with the Croix de Guérre and made Chevalier de la Legion d'Honneur. He returned to Dana in 1945. A former director of the American Society of Perfumers, Mr. Meunier is presently a member of the American Society of Cosmetic Chemists and the American Section of the Societé de Chimie Industrielle of France.

•

Noxzema Appoints Hunt

William D. Hunt, in charge of new product development, has been moved up to the post of vice-president, director of product development, by Noxema Chemical Co., Baltimore, marketer of aerosol shave creams.

Aerosol Products Are Hit of Poznan Trade Fair

AEROSOL products—shave creams, hair sprays, colognes, topical pharmaceuticals, and others—received an enthusiastic reception in their first large-scale showing behind the Iron Curtain in June. Late accounts of the Rexall drugstore exhibit at the Poznan, Poland, International Trade Fair (published in the August 4 issue of *Look* Magazine and in other periodicals), showed photographs of enthusiastic Poles getting "lathered up" with an aerosol shave cream and being sprayed by aerosol cologne.

John Bowles, president of the Rexall Division of Rexall Drug and Chemical Co. Los Angeles, who ran the Rexall exhibit, reported that the Polish people who came to the store were "hungry for knowledge of our American way of life. They showed intense curiosity about everything in our Rexall drugstore—standing five and six deep at the railing most of the time." An estimated 410,000 people visited the fair, June 7-21, and from new accounts, most of them apparently got around to seeing the drug store, at which Mr. Bowles, his wife Norma, and a Polish and American staff demonstrated the whole range of products encountered in the American drug store.

People visiting the Rexall exhibit expressed an interest in buying the products, but the Rexall personnel were not permitted to sell them any. The entire American exhibit, which featured consumer goods, was in sharp contrast to the rest of the fair, which consisted mainly of heavy industrial equipment.

The exhibit has been dismantled and will be reassembled for a similar trade fair to be held Sept. 6-21 in Salonika, Greece.

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- **QUALITY CONTROLLED**—Every shipment laboratory tested for crack resistance.
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Why sell your products by the ounce?

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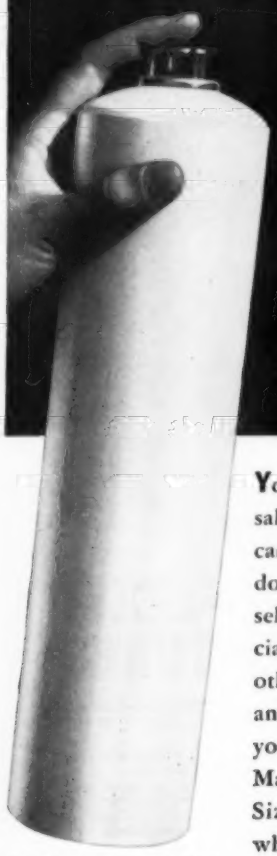

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55-75-132 CU. IN.

KING SIZE

AEROSOL CONTAINERS

Working Pressure 240 psi ICC Approved

You need no longer limit your sales with small 8 and 12 ounce cans that don't hold enough to do the job. Whether you are selling to household, commercial, institutional, industrial or other markets, you sell more and customers use more when you sell in bigger containers. Manufacturers like TMC King Size Pressure Containers . . . wholesalers like them . . . dealers like them . . . users like them! Whether you sell fluid, viscous or dry materials, TMC King Size disposable containers give you a challenging merchandising weapon worth looking into. Write or phone.

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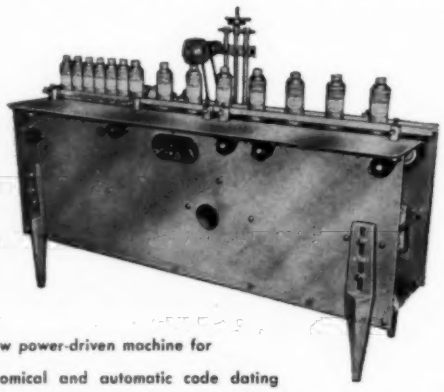
Aerosol Container

CODE DATING MACHINE



a new power-driven machine for economical and automatic code dating the concave bottoms of pressurized cans or flat bottoms of other round containers with work table area. Will mark top, bottom, or both at the same time.

Send details on your specific marking problems. Literature available on all types of applications.

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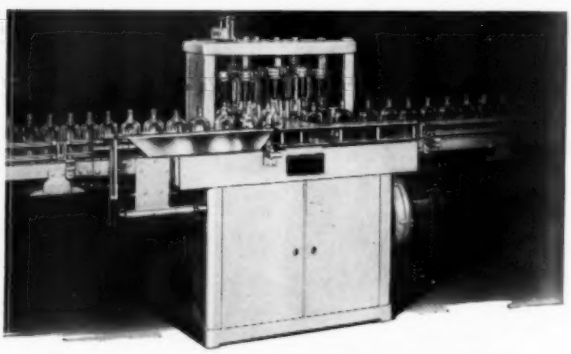

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Used by the leaders in aerosol packaging

AIR CLEANING CONTAINERS is your most worthwhile consideration. *Positive* removal of any speck of foreign matter is vital to the operation of each valve. Air cleaning also safeguards the quality of your product.

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EDITOR'S MAILBAG

To the Editor:

Thank you for giving my recent article "Research is a Business" such an excellent review in the August (page 42) *Aerosol Age*. The concluding sentence of your review missed the major point however.

I would like to make it quite clear that I do *not* advocate that executives depend on ". . . buying the right man at the right time, and on knowing when to zig and when to zag."

On the contrary, I was decrying this practice which results from the "band wagon approach" to research management. In my article, I advocated a level headed business-like approach: find a market demand, be the first to fill the need, and then try to hold the lead time and position you have established.

I would appreciate that you publish this letter to set the record straight.

Robert L. Goldemberg
Associate Director
Toiletries Research
SHULTON, INC.
Clifton, N. J.

•

To the Editor

In the April issue of *Aerosol Age*, you were kind enough to draw the attention of your readers, in "Over the Transom" to the publicity achieved on the "Presfil" aerosol pressure filling machine.

We would like to point out that it is not strictly true to state that the Presfil fills U.S. valves only at very slow speeds.

In conjunction with the Presfil, the "Crivac"—a vacuum crimper, is used. This is a semi-automatic crimper which creates a vacuum and crimps a valve onto a container in one action. The vacuum drawn is up to 29 inches of mercury. Thus, the container, when presented to the Presfil, is pre-evacuated, and the rate of fill of product and propellant is such that the following timings can be achieved:-

Newman-Green & Aerosol Research Valves (6 oz. insecticide, perfume)—6 sec.

Oil Equipment Laboratories Valve 6¼-oz. container shaving soap—8 seconds.

Precision Valves (6-oz. container insecticide, perfume)—9 seconds. (Shaving soap, hand cream)—10 seconds.

Should you be interested, we will be only too pleased to provide a complete analysis sheet of rates of fill, using a variety of valves, over a wide range of products.

In closing, we would like to record our appreciation of your remarks concerning our public relations efforts with the Presfil.

S. R. G. Scott-Gall
Managing Director
M. CALLAWAY, LTD.
London, E. C. 2, England

CSMA Sets Sept. 15 Meeting

Plans have been completed for the general membership luncheon of the Chemical Specialties Manufacturers Association on Tuesday, Sept. 15. The affair is one of two scheduled for that day in the beautiful Sky Gardens of the St. Moritz Hotel overlooking New York's Central Park.

The general luncheon is scheduled for 1 p.m. that day and a cocktail party for 5:30 of the same afternoon.

Both events will highlight a two-day schedule of meetings by the CSMA's board of governors, division executive boards, and general and division committees.

•

Bjork to Be Norda Director

The Norda Essential Oil and Chemical Co., New York, has elected H. William Bjork to its board of directors. Earlier this year he retired from L. Sonneborn Sons after 40 years in the cosmetic, pharmaceutical and chemical industries. He was manager of the White Oil Division of Sonneborn and continues in an advisory capacity for that firm. At present he is an officer and director of H. Clay Glover Co., West Hempstead, N. Y., manufacturer of animal remedies, and a partner in Kamen & Co., members of the New York Stock Exchange.

•

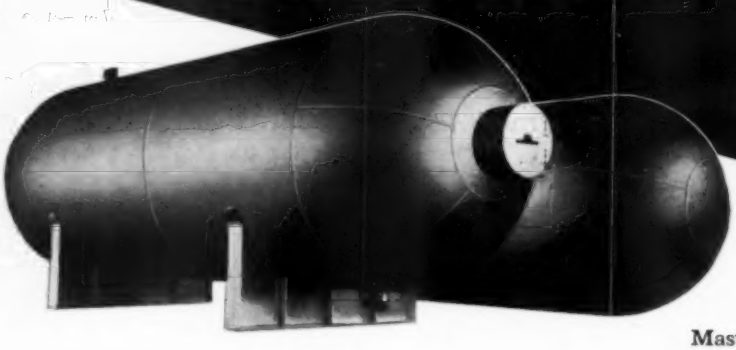
O-I Revamps East Sales

Robert F. Miller, manager of the New York branch of the Glass Container Division of Owens-Illinois, has been named Eastern regional sales manager. He succeeds Clark L. Rodgers, Eastern regional manager for the past 17 years, who will assume special duties.

Herbert C. Gstalder, Detroit branch manager for the division since 1947, will replace Mr. Miller as head of the New York office.

Mr. Miller, who had extensive experience in the company's Drug and Chemical Division before becoming New York manager in 1957, joined O-I in 1941. He has served as a district sales manager for the Drug

PROPELLANT PRESSURE VESSELS of all sizes



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FROM 150 GALLONS TO 70,000 GALLONS

Master Tank & Welding, one of the oldest fabricators of ASME pressure vessels for the petroleum and the butane-propane industries, is now producing propellant pressure vessels for the aerosol industry. Both Master plants at Dallas, Texas, and Quincy, Illinois, are equipped with the most modern steel fabricating equipment to assure you of the utmost in safety and quality. This modern equipment also means competitive prices. Send us your specifications for quotation and delivery. No obligation, of course.

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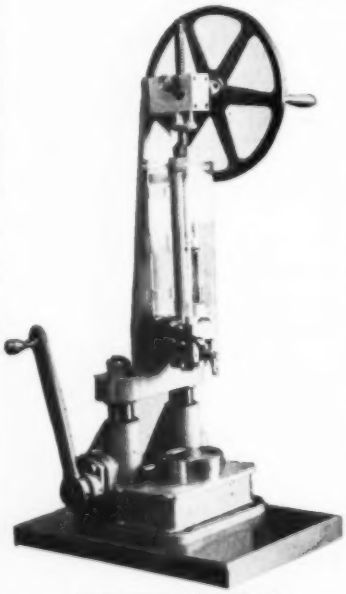
Hand Operated Vial Capper
Change Parts for Vial Capper
One inch opening Can Closing Press
Hydrostatic Test Units
Karl Fischer Pressure Titration Cells
Dead Stop Indicator for Karl Fischer Titrameter
Density Units
High Pressure Test Bombs
Can Sampling Units — Piercing or Valve Actuating
Pressure Gauging Unit — Pressure Balance or Water Filled
Test Ovens — Standard or Custom Built
Instantaneous Chiller Units—Mechanically Refrigerated
Electric Hot Water Test Bath
Hot Water Bath Transfer Baskets Safety Top Tank Racks
Table Tank Rack Combinations
Safety Screen Tubes for Glass Pressure Tubes
Plastic Protective Screens
Gloves and Masks



Foresman Liquefied Gas Manipulator

Apparatus Division
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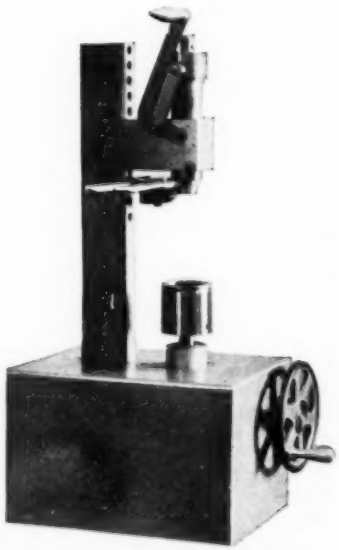

Foresman Hand Operated Vial Capper

and Chemical Division in both New York and Toledo and in 1953 was named manager of the division's pharmaceutical and proprietary ware sales. In 1957 he was named assistant sales manager for the drug and chemical industries and later in the year was selected to head the New York branch.

•

Study DDT Behavior in Water

Discovery that the behavior of DDT in water influences its effectiveness in killing mosquito larvae was reported last month by the U.S. Department of Agriculture.

The discovery is expected to help explain some of the unpredictable results that mosquito control workers have obtained in applying the insecticide to ponds, lakes, and other mosquito-breeding areas. Field studies are now being contemplated to see if changes in the manner of using DDT will lead to more effective results.

Employing a radioactive tracer in DDT, USDA's Agricultural Research Service scientists found that the chemical rushes to get out of suspension in water either by evaporation or by clinging to the walls and bottoms of containers.

This previously unknown action of the world's most widely used insecticide was discovered by USDA entomologists and chemists at Orlando, Fla., in their attempts to determine why simple mosquito-resistance tests in laboratories failed in some instances to provide reliable data.

By duplicating the tests with DDT tagged with radioactive carbon atoms, the scientists traced the movement of the insecticide in the water. They found that DDT was lost by evaporation concurrently with water, by co-distillation. Further, they found that DDT is so hydrophobic (water-hating) that it tends to concentrate on the upper water surface and container wall and bottom surfaces.

Within two minutes after stirring in 1 part of DDT to every hundred million parts of water, as much as a third of the DDT had fled to the walls and bottoms of the containers whether made of paper, glass, or aluminum. Further, in 24 hours more than half the DDT, long known for its persistence and non-volatility, had evaporated.

Similar tests with other insecticides —parathion, malathion, lindane, and dieldrin—did not show this action. Indeed, the behavior of DDT in water surprised the scientists. This was all the more remarkable since DDT has been investigated for many years, is used more than any other insecticide, and probably more is known about it than any other insecticide.

•

Fuller Brush Appoints Carl

The Fuller Brush Co., Hartford, last month named Lester H. Carl, vice-president and a member of the board of directors, to the post of general manager. He will direct all production activities in the Hartford plant, as well as those in subsidiary plants in Albany, N. Y., and Canada.

•

Danilek Visits Europe

J. A. Danilek, president of Mary Chess and Schiaparelli, Inc., is in Europe on a business trip.

Labeling Bill Hits Snag

The chemical industry's bill for labeling household substances, written with the cooperation of the Chemical Specialties Manufacturers Association and industry other groups, last month ran into at least two unexpected snags. The first of these was the opposition of organized labor, which demanded that the bill be broadened to cover commercial as well as home use sizes of hazardous substances. Also in opposition to the bill were the food and toiletries industries, which expressed fears that the measure would further confuse coverage of their products by the existing food, drug, and cosmetic law.

These recent developments may combine to sideline the measure for this session. At this writing it is still under consideration by the Senate Interstate Commerce Committee. Representatives of the Food and Drug Administration are trying to counter food and toiletries opposition. FDA Commissioner George P. Larrick recently told the Committee that the law would help

the FDA protect consumers in connection with the use of aerosol food and toiletries. He reported that existing laws do not require the use of precautionary labels on these types of products, and advocated that this be required in either the hazardous substances law or by amendment to the food, drug, and cosmetic law.

•

Buys Canning Mach. Co.

The Canning Machinery Co., Portland, Ore., manufacturer of the "Camco" line of aerosol cappers and other container handling equipment, has been acquired by the Horix Manufacturing Co., Pittsburgh, major U.S. manufacturer of can unscramblers and similar equipment.

The "Camco" line will continue to be manufactured in Portland under the direction of Frank B. Fairbanks, Jr., Horix vice-president. Former Canning Machinery president L. E. Tripp has been named west coast and mountain states sales agent for all Horix equipment and machines.

•

Clairol Names W. R. Tierney

William R. Tierney, former director of marketing, has been elected to the newly created position of vice-president by Clairol, Inc.

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Colbert Named by O-I

James W. Colbert, in the glass container business, has relinquished his position as assistant Eastern regional sales manager for the Glass Container Division of Owens-Illinois to work on special assignments pending his retirement.

Mr. Colbert, who has spent 43 of his 47 years in the glass container business in O-I's New York sales branch, was eligible for retirement early this year but will remain until the end of the year to complete some special projects.

He joined O-I in the company's glass container plant in his native Alton, Ill. After two years, he transferred to sales and was assigned to Louisville, Ky., for two years. For the past 43 years he has been assigned to the New York branch and served as branch manager before being named assistant regional manager nine years ago.

•

Theimer Chicago SCC Speaker

Speaking before a recent meeting of the Chicago Chapter of the Society of Cosmetic Chemists, Dr. Ernst T. Theimer, director of research for the van Ameringen-Haebler Division of International Flavors & Fragrances Inc., New York, stressed some of the achievements in research resulting from new developments and advances in the field of instrumental analysis.

Noting the simplicity and accuracy of the quantitative analysis of mixtures when using infrared and gas chromatographic techniques, he said that in particular, mixtures of terpene alcohols containing citronellol, geraniol, nerol, and dimethyl octanol, and mixtures of the methyl ionone isomers containing also minor impurities are easily assayed. Gas chromatography was discussed, with the emphasis on recent developments in high resolution capillary columns and ionization-type detectors. The results achieved with these new instruments were shown to be greatly superior to the conventional types of columns and detectors.

Also discussed by Dr. Theimer were the techniques of utilizing near and far infrared as well as mass spectral analysis, which in conjunction with VPC separation gives insight into the structure of molecules, using very small samples and in a very short period of time.

Looking to the future of instrumental analysis, the speaker covered data presently available on high resolution nuclear magnetic resonance. This technique, while requiring expensive and complicated equipment, may very well be the method of the future, because of the "tremendous amount of information it gives on the number and the chemical environment of hydrogen atoms in molecules." It was shown, for example, that a complete analysis of the structure of relatively simple molecules such as lower aliphatic alcohols could be made by nuclear magnetic resonance. Without this technique, it would be impossible to "see" the relationship of the various hydrogen atoms contained in a chemical compound.

•

Hawes Joins Brockway

John C. Hawes has joined Brockway Glass Co., Brockway, Pa., as manager of marketing, advertising, and promotion. He had been an advertising account exec.

Butane and Propane

(*From Page* 34)

any one or two or six cans to cause any damage. Perhaps the potential hazard does exist but, on the other hand, during production these units are (or certainly should be) hot water bath tested and consequently the potential leakers that would occur in the field would undoubtedly be leaking quite slowly and, in most instances, I suspect the gas would be dissipated into the air so as not to reach an explosive concentration. Even if the can was contained in a corrugated shipper that was sealed tightly so as to do a better job of containing the leaked vapor from the can, then by the same token this carton will not be capable of receiving an ignition source.

Again, in consideration of the extremely small amount of propellant, in at least today's formulas, I cannot become concerned regarding the hydrocarbon hazard in regard to clinch

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leakers or seam leakers. I think the same, or at least a similar hazard, exists in leakers involving the refrigeration type propellants where they are dispensing oil base materials. If the leak occurs in the liquid phase, the oil leaking out and soaking the cardboard cartons would present a fire hazard!

We, too, are very concerned that someone might by either error or for purposes of so-called "economy," involve an excessive amount of hydrocarbon in an oil base package to the point that the resultant dispenser will represent a hazard. I doubt that a package of this type would be permitted to stay on the market long, but by the same token it might not take very much time for an accident to happen with a package of this type and the industry could become involved in an extremely undesirable publicity situation.

Properly used, the hydrocarbons have a tremendous application in aerosol dispensers. Improperly used, the hydrocarbons could put a black mark on our great aerosol industry.

•

By Edward F. Helfer
President
Powr-Pak, Inc.
Bridgeport, Conn.

RELATIVE to your inquiry about hydrocarbon propellants, I would like to take up the points you raised in the same sequence as in your letter.

1. Obviously, there is a greater danger to the filler in handling hydrocarbon propellants than there is in the fluorinated propellants. However, I would like to point out that these propellants have been run in several plants for the past several years without serious accident. We have run these propellants in our plant, and feel that with proper safety precaution, the hydrocarbons can be handled without any great danger.

2. The type of product for which hydrocarbon propellant is best suited seems to be expanding daily. As you know, this type of propellant has been used for shave creams, furniture polishes, window cleaners, etc., almost exclusively. Recent developments at Powr-Pak have shown that this type of propellant is also suitable for such products as room deodorants, hair lacquers, insecticides, and many others still under investigation. It is felt that this list will be expanded considerably within the next few months.

3. Our laboratories have run many tests and have gone through a considerable number of calculations in order to determine the danger to the consumer with the use of these products. Obviously, overfilling can lead to bursting of containers without regard to the nature of the propellant.

As far as leakage in a closed space is concerned, it has been determined by a great number of calculations we have made, that it would take a considerable number of cans leaking the hydrocarbon propellant in order to reach a dangerous or explosive mixture in a warehouse, room, or other confined space. We would like to point out that the hydrocarbon-freon combinations we have made have passed all ICC and other regulatory tests.

It should be borne in mind that there is a comparably small amount of hydrocarbon propellant per can, and a much larger amount of fluorinated propellant. The likelihood of the type of leakage which would result in the release of pure hydrocarbon in a confined space is extremely small.★

SAFCA Valves

(*From Page* 29)

the licensee initially begin with a laboratory. Already, including its own, there are six of these laboratories, each sharing the benefit of its research and findings with the others. Coordinating this information exchange is a bi-monthly journal issued by SAFCA's central sales and administrative office in Paris and circulated among the licensees. A monthly bulletin supplements this information with sales hints and a summary of overall activities. Once a year an annual "congress" of all licensees is held at Sérézin-du-Rhône. This year there were 20 in attendance at a meeting

held just prior to the plant visit mentioned above. The minutes and papers of this meeting are printed for general distribution.

Thus, this company is prepared for both national and international expansion on all fronts in the aerosol pressure packaging industry. Of necessity, its management handles all international languages and its technical staff all problems in the pressure packaging field. SAFCA could be a significant factor in international aerosol trade in the years ahead.★

Glass Bottle Testing

(from page 40)

B. Test Procedure

1. *Position*

Many factors can influence the structural strength of a glass aerosol bottle. We will not elaborate on the factors, but satisfy ourselves with the observation that the size, design, and shape of a bottle are very important with respect to its structural strength. It has arbitrarily been decided, therefore, to determine first the most vulnerable position of the bottle, and run subsequent tests in this drop position.

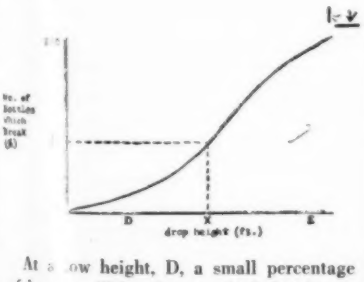
2. *Height*

The greatest distance between the floor and a shelf or cabinet, under ordinary home storage conditions, is taken as 6 ft. Therefore, 6 ft. was chosen as the height to begin the sensitivity testing.

3. *Statistical Design*

The use of a statistical design enables us, through the mathematical laws of probability, to conduct the test with a relatively small number of bottles. The "sensitivity testing" procedure, on which the drop test is based, is commonly used in such fields as evaluating explosives, toxicity testing on animals, etc.

By conducting several thousand drop tests on glass bottle aerosols containers, a curve similar to that indicated below could be obtained for a given design and formulation.



At a low height, D, a small percentage of bottles will break; at a high height, E,

EAST

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nearly all the bottles will break. At a height, $\overline{X}$, 50% of the bottles will be expected to break. This value depends on an actual curve which has been laboriously plotted from a *very large* number of experimental drops.

However, from Formula 1:

$$\overline{X} = y' + \frac{A}{N} + \frac{1}{2}d,$$

the arithmetic mean height X can be also calculated using only a relatively small number of drop samples. By means of this statistical equation, we have made use of the "S" shaped curve without having to plot it from a large body of experimental data.★

References

1. Dixon, Wilfred J. and Massey, Frank J., Jr., *Introduction to Statistical Analysis*, Chapter 19, McGraw-Hill Book Company, Inc. (1951)
2. Eisenhart, Churchill, et al., *Selected Techniques of Statistical Analysis*, page 341. McGraw-Hill Book Company, Inc. (1947)

Aerosols in Review

(*From Page* 42)

middle of what many people were calling a recession".

This "recession", combined with the fact that Johnson introduced six other new products that year, considerably complicated the product introduction campaign, the article says. Also complicating things were the fact that "Pledge" was a threat to take over some of the market for "Pride", another Johnson product, and the campaign had to be designed to increase the total market rather than cut too heavily into "Pride's" sales volume.

Use of interviews with housewives who had tried the product in unmarked containers was one of the chief instruments used in evaluating its market potential. A motion picture report of all the interviews was made and then studied by the company's sales force.

"One of the important uses of the facts and films was to serve as the means for arousing enthusiasm in the company's 350-strong sales force. These men, who visited wholesalers, chain buyers, and independent supermarket managers, had to be convinced of the market and its potential. Sales promotion was drawn upon to

contribute an exciting meeting for the sales force, developing ideas, tools and techniques to help the speakers sell the Johnson salesmen."

In these sales meetings it was determined that the product went far toward selling itself, and small samples were ordered and distributed widely by salesmen. Also, an extensive advertising campaign was organized with a special eye toward establishing product (and container) identification. This extended to television, local newspapers, and point-of-purchase displays.

The success of the program, according to the article, may be measured by its almost immediate results in the sales column. "In the first five months after its introduction, 'Pledge' led the field of wax polishes, and what was more pleasing to its sponsor, it built its volume by increasing the total market, bringing new customers into the picture. "Pride" dropped a little, but still maintained a healthy share of the total market."

•

SERIOUS questions about the stated and actual weights of aerosol containers are raised in the August issue of *Consumer Reports*. In a report on deceptive packaging called "From John Quincy Adams to Madison Avenue U.S.A.", the periodical declares:

". . . If the trade press publications are to be trusted, within less than a few years we will be inundated with aerosol products. Already available in aerosol form are such goods as toothpaste, chocolate topping, perfume, toilet water, vitamins, coffee, paints, detergents, insecticides, and whipped cream. Soon to be marketed in aerosol form are baby foods, salad dressings, mayonnaise, jams, cheese dips, meat spreads, starch, hair shampoos, and maple syrup. A whole range of new problems attend the aerosol package. Does net weight mean product plus propellant? Is there a reasonable proportion to be maintained between propellant and product? Too much propellant can make this package misleading. Too little can mean waste of the aerosolled product—the amount that remains in the container after the propellant is exhausted. And what about such products as paint, which traditionally have been sold by volume? Can volume designations continue in use with aerosolled paint?"★

Hair Coloring Market

(*From Page* 30)

the moment or impulse buying. "Drug stores were the source of 57.1% of the total number bought during the month of November 1956, while department stores had been patronized for 22.9% and food stores, variety stores, and cosmetic or beauty shops, 5.7% each."

Per Cent Buying Tints

Outlet Patronized	*All Tyes* %	*Aerosols* %
Drug Stores	59	50
Beauty Shops	14	12
Department Stores	10	38
Variety Stores	8	a
Grocery Stores	2	a

[a] Not listed separately.

The latter part of the survey is devoted mainly to summary of a number of previously published hair product surveys, many of which shed additional light on hair coloring buying trends and preferences. One of the surveys quoted from is the DuPont 1956 study on "The Market for Aerosol Hair Products." The quotation from that survey is as follows:

"Eleven per cent of all women, according to this study, among a national probability sample of 1,824 housewives who were interviewed in November 1956 by Daniel Starch and Staff, used hair tints with most of them (93%) completely satisfied with the particular product used. Only 8% of those who colored their hair said they had heard of tints packed in aerosol containers, with about half having tried them, bringing the proportion of women who had used aerosols to 4%. This last-mentioned group, reportedly, preferred aerosol-packed tints to other forms of packaging by a ratio of two to one because aerosols were 'easy to use, apply; not messy, neater to use.' The objections of the women who did not prefer aerosol packed tints were equally divided between: 'difficult to use, cannot control spray; messy to use' and 'did not take, did not cover.' The small number of women who had heard of aerosol hair tints but had not tried them claimed they were satisfied with the type they were using.

"Although the largest number of women bought hair tints in drug stores, department stores were of more than ordinary importance in the sale of aerosol packed tints."★

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New Aerosol Patents

Listed below is a brief review of recent patents pertinent to the aerosol and related industries.

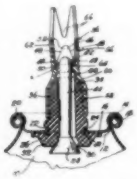
Complete copies of these patents may be obtained by writing to the Commissioner of Patents, U. S. Patent Office, Washington 25, D. C., and remitting 25 cents for each copy desired.

2,894,660. DISPENSER CAP. Issued July 1 to Edward L. Gordon, Pittsburgh, Pa.

In a cap for a pressure can having a valved closure in its head and a valve stem projecting thereabove, said cap including a cylinder the lower end of which fits tightly over said head, a spout extending laterally from said cylinder and a deflectable disc mounted transversely in said cylinder having a passage therein communicating with said spout and a seat on its under side fitting over said stem and provided with an opening into said passage, the combination therewith of a dome-shaped, flexible, resilient diaphragm fitted in the top of said cylinder and overlying said disc, adapted to be deformed by finger pressure applied to deflect said disc, and a port in said disc communicating with said passage whereby the return of the diaphragm to normal condition, on release of finger pressure, exerts a suction tending to withdraw from the end of the spout any material remaining therein on release of said disc.

•

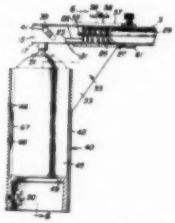
2,892,575. DISPENSER VALVE STRUCTURE. Issued June 30 to Jerome M. Turk, Evanston, Ill., assignor to Super Whip Valve Co., Chicago, Ill.



In combination with a container closure having an opening therethrough, a resilient tubular plug extending through said opening, said plug being provided with a valve seat on the inner side, a valve stem extending through said tubular plug, said valve stem being integrally formed of a plastic material and having a valve member as its lower end adapted to engage said valve seat and provided at its outer end with a preformed tapering head having portions thereof extending laterally beyond the stem to provide engaging surfaces, a separate nozzle insertable over and enveloping the upper portion of said plug and having an inwardly extending shoulder having an inside diameter less than the outside diameter of said laterally extending portions to provide a locking engagement with said nozzle and to prevent removal of said nozzle, said nozzle and laterally extending portions having sufficient resiliency to permit initial insertion through the inner side of said tubular plug to move past said inwardly extending shoulder and to effect an automatic locking engagement with said shoulder as it is passed beyond said shoulder.

•

2,893,606. ACTUATOR FOR PRESSURIZED PRODUCTS. Issued July 7 to Jacob W. Hawkins, Pueblo, Colo.



An actuator for use with a pressurized can of liquid having a depressible spray nozzle head comprising an elongated barrel having a hand-grip at one end and an elongated bottom slot in its other end, an elongated blade endwise longitudinally slidable in opposite directions, respectively in the other end and longitudinally of said barrel and transversely movable bodily outwardly of said slot, coengaging camming devices on said barrel, and said blade, respectively, for moving the blade outwardly of said slot in response to movement of said blade in one direction, a trigger on said barrel means extending from said trigger into said barrel and operatively connecting the trigger to the blade to slide the same in said one direction, spring means in said barrel acting in conjunction with said camming devices to yieldingly hold said blade against the top of the barrel and within the barrel in out-of-the-way protected position, and a holder on said barrel beneath said slot for supporting a pressurized can of liquid with its spray nozzle head beneath said blade for depression of said head by said blade in response to movement of said blade outwardly of said slot.

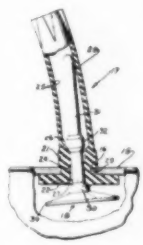
•

2,895,640. GAS DISPENSING APPARATUS. Issued July 21 to Earl M. Becker, Pittsburgh, and John J. Bridge, Turtle Creek, Pa., assignors to Mine Safety Appliances Co., Pittsburgh.

Apparatus for dispensing gas at low pressure from a container of high pressure gas, comprising a high pressure chamber for receiving high pressure gas from the container, a low pressure chamber provided with an outlet, a gas passage connecting the two chambers, valve means controlling the flow of gas through the passage, the cross-sectional areas of the passage and the outlet being so proportioned that when the valve means are fully opened gas will flow through the passage into the low pressure chamber at least as fast as it flows out of that chamber through the outlet, flow regulating means responsive to changes of pressure in the low pressure chamber and operative to open the valve when that pressure falls below and to close the valve when that pressure rises above a predetermined pressure, and pressure indicating means including a dispensing head secured to the top of the container, a feeler rod slidably received within the head and extending therethrough with its inner end subjected to the pressure of gas within the container and its outer end adapted to project outside the head when that pressure is above a predetermined minimum, spring means urging the feeler rod against the pressure of gas in the container, sealing means to prevent the escape of gas from the container around the rod.

•

2,892,574. VALVE FOR DISPENSING FLUID MEDIUM UNDER PRESSURE FROM A CONTAINER. Issued June 30 to Harold C. Noe, Upper Montclair, N.J., assignor to Kidde Manufacturing Co., Bloomfield, N. J.



In combination with a container having a wall formed with an opening therethrough, a yieldable member having a resilient plug section extending downwardly through said opening, a tubular section of greater length than said plug section extending upwardly from said plug section, and a flange on said plug section disposed within said container and engaging the interior of said wall, said member having a relatively small diameter bore extending through said plug section and having a bore of greater length and diameter than said small bore extending through said tubular section and communicating with said small bore; and a valve member having a portion seated across the lower end of said small bore to seal said small bore and having a fluid impervious stem extending upwardly through said small bore and extending into said large bore to adjacent the upper end of said tubular section, said stem being di-

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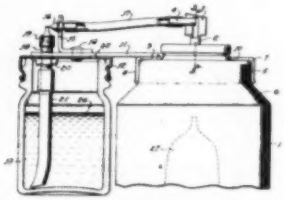
mensioned to be in close-fitting relationship with said small bore substantially throughout the length of said small bore to provide a seal there-between, said valve stem being tiltable to unseat said valve member portion and to deform said small bore to provide a passageway about said stem for establishing fluid flow communication between the lower end of said small bore and said large bore.

•

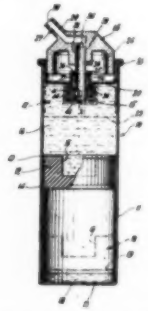
2,892,317. SPRAY GUN. Issued June 30 to Hiram M. Holmes, Whittier, Calif.



In means of the character disclosed, a container for holding liquefied gas, the said container provided with a valve for controlling discharge of the liquefied gas in gaseous form under pressure, and heat transfer means comprising an impervious bag filled with water within the said container and surrounded by said liquefied gas for maintaining gas flow from said container when the valve is opened.

•

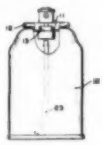
2,895,650. DISPENSER FOR MATERIALS IN LIQUID AND SEMISOLID STATES. Issued July 21 to Thomas J. Mahon, Englewood, N.J., and Albert Leon Edelstein, New York, assignors by mesne assignments to Association for Physiologic Research Inc., New York.



A dispenser comprising a generally cylindrical housing side wall, housing end walls at opposite ends of said housing side walls, one of said end walls being crimped about the periphery of the side wall and located longitudinally inward from the adjacent end of said housing side wall to define a trough and longitudinal extension into said housing, a reciprocable piston in said housing side wall forming a seal therewith combining with said housing side wall to define a dispensing material chamber and an expansion chamber, an elongate open-ended collar arranged longitudinally within said housing and fixedly carried within said longitudinal extension having one of its ends extending inward into said dispensing material chamber and the other end extending beyond said housing, an annular sealing gasket fixed within said collar adjacent to the inward end thereof and extending into said dispensing material chamber, a tubular valve member extending longitudinally through said collar into said dispensing material chamber and received in said sealing gasket for longitudinal movement, dispensing apertures in said valve member normally closed by said sealing gasket and radially covered thereby when said valve member is in its outward position to close the interior of said dispensing material chamber to the atmosphere and movable relative thereto to be selectively and progressively uncovered a predetermined amount by said sealing gasket when said valve member is moved progressively inward into said dispensing material chamber to vent said chamber a predetermined amount to the atmosphere, a coil compression spring located interiorly of said collar circumposed about said tubular valve member and resiliently urging the latter toward its outward closed position of movement, and a selectively operable dispenser cap carried on the outer end of said tubular valve member for manually effecting the predetermined longitudinal movement of said valve member, said cap conforming in shape for receipt in the adjacent end portion of said housing side wall and engageable therewith to limit lateral movement of said valve member.

•

2,892,576. METERING BUTTON VALVE ASSEMBLY. Issued June 30 to Lawrence T. Ward, Portland, Pa.



A metering outlet valve assembly for a pressurized container having an outlet aperture comprising in combination: a hollow depressible operating stem resiliently biased outwardly from said container, the outer wall of said stem sealingly and slidably engaging the sides of said aperture, and an opening through said outer wall movable inward from sealing engagement with said sides to connect the interior of said stem with the interior of said container; and a button cap mounted in sealing contact around the outer end of said stem, a chamber of predetermined capacity in said cap, a discharge passage through said cap connecting with said chamber, said chamber being in communication with the interior of said stem, and means operable by depression of said cap for closing off the connection of said passage with said chamber before said stem is depressed and before said opening is brought in communication with the interior of said container.

•

Helene Curtis Names Rowells

William Rowells, former art director, has been named to the post of director of the package design department of Helene Curtis, Chicago.

CLASSIFIED ADVERTISING

Address all classified replies to Box Number c/o *Aerosol Age*, PO Box 31, Caldwell, N. J. Rates for "Help Wanted" advertisements are 20¢ per word; minimum charge $3.00. Rate for individuals seeking employment is 5¢ per word, $1.00 minimum. Advertisements of new machinery, products and services accepted at the rate of $10.00 per column inch. Minimum space, one inch. Copy closing date, 10th of preceding month. *Checks must accompany all orders.*

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Arenco Buys Alite Co.

Alite Machines, Ltd., Letchworth, England, has been acquired by Arenco AB of Stockholm, Sweden, parent company of Arenco Machine Co. Inc., New York. The new name of the company in England will be Arenco-Alite Machines, Ltd. The combined line includes machines for mixing, a compression filling machine, and a coding machine for aluminum containers.

Barr Marks Milestone

Stability testing of aerosol products at G. Barr and Co., Chicago custom filler, reached a milestone last month when the 15,000th container was entered in the firm's Chicago laboratory shelf room for shelf time evaluation. The stability testing is part of the company's overall quality control system.

Since the shelf test procedure was instituted four and one-half years ago, four containers of every run of every aerosol product made by the company have been shelved; then one of the four containers is tested at intervals of one month, six months, one year, and four years after production.

•

Kuenstler to Warner-Lambert

Walter P. Kuenstler has been appointed director of market research for the Consumer Products Division of Warner-Lambert Pharmaceutical Co., Morris Plains, N. J.

Pyrethrum Groups Name Agents

The two major pyrethrum producing groups in Africa, the Societe Cooperative des Produits Agricoles of Goma, Belgian Congo, and the Pyrethrum Board of Kenya, have appointed two U.S. firms to be exclusive representatives for their products in this country.

Biddle Sawyer Corp., 20 Vesey Street, New York 7, was named to represent the Societe Cooperative des Produits Agricoles, which will ship its extract from a new plant at Goma. The Kenya group will continue to be represented by Balfour, Guthrie & Co., New York.

•

Nestle-LeMur Combines Units

The Nestle-LeMur Co., New York, a leading aerosol marketer, has combined the product lines and distribution facilities of three "old-line" drug houses, The Carroll Dunham Smith Pharmacal Co., New Brunswick, N.J.; E. S. Miller Laboratories, Los Angeles, and E. L. Patch Co., Boston. The three firms have been combined into a single sales and distribution operation, which will operate as Smith, Miller & Patch.

•

Packaging Inst. Names Walsh

The appointment of Richard T. Walsh to the post of membership coordinator on the headquarters staff of the Packaging Institute in New York City has been announced by Charles A. Feld, executive director. Creation of this staff position is the latest step in expanding service to Packaging Institute's 1,000 members.

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Trade Mark Applications

Applications for registration of the following trademarks were published in recent issues of the *Official Gazette* of the U. S. Patent Office. In not all cases are there strictly aerosol trademarks, however many of the products listed below come within the category of those for which a possible future use in aerosols is foreseen.

LIVING CURL, for hair spray. Filed March 6, 1958 by Revlon, Inc., claiming first use Jan. 16, 1958.

FALAINE, for moth destroying and repelling preparations. Filed Nov. 10, 1958 by Catomance Ltd., Welwyn Garden City, England, reporting first use in British Reg. No 654,623.

TO A WILD ROSE, for cologne, perfume, toilet water, sachet, and other cosmetic uses. Filed April 2, 1958 by Avon Products, Inc., New York, reporting first use in or about Dec. 1950.

SPEER, for household insect spray. Filed Aug. 13, 1958 by Whitmel H. Gibson, Jourdantown, Tex., claiming first use May 15, 1958.

ESSENCE DE FLEURS, for cologne. Filed July 19, 1957 by Avon Products, Inc., New York reporting first use July 10, 1957.

TRUE WHIP, for sterilized cream packed under pressure. Filed Dec. 16, 1957 by Avoset Co., Oakland, Calif., claiming first use Nov. 15 of same year.

QUICK, HENRY, THE FLIT!, for insecticides, deodorants, and disinfectants. Filed Jan. 9, 1958 by Esso Standard Oil Co., New York, with first use reported "at least as early as 1930".

SUN SECT, for combination suntan lotion and insect repellent. Filed Aug. 7, 1958 by Chevron Chemical Corp., Evanston, Ill., with first use given as June 27 of same year.

BACTISTAT and POSILIN, both for antibiotic preparations. Both filed in Nov. 1958 by Chas. Pfizer & Co., claiming first use for the former as Sept. 16 and for the latter as Nov. 11 of that year.

SKEETER SKAT, for insect repellent finish coating for textiles, particularly ladies' hosiery. Filed Dec. 28, 1955 by Hans C. Bick, Inc., Reading, Pa., reporting first use Nov. 23 of same year.

KERATINT, for hair dyes, hair dressing, and other hair care products. Filed Feb. 21, 1958 by Eugene-Gallia S.A., Paris, France, reporting first use in French Reg. No. 465,611.

LUZIER, for perfumes, colognes, sachet powder, deodorants, nail polish remover, suntan lotion, hair sprays, and a wide range of other cosmetics. Filed Feb. 25, 1958 by Luzier's Inc., Kansas City, Mo., claiming first use Jan. 15, 1957.

LOUSE-CHASE, for insecticide for animals and poulty. Filed March 21, 1958 by Dairy Association Co., Lyndonville, Vt., assignee to Graylawn Farms, Inc., Orleans, Vt., claiming first use Oct. 23, 1919.

VAGABOND, for toilet water and cologne. Filed Oct. 8, 1958 by Helene Curtis Industries, Inc., d.b a. Lentheric, Chicago, reporting first use on or about July 21, 1958.

DUEL, for disinfectant-deodorant for household and industrial use. Filed Oct. 13 by National Laboratories, Inc., Toledo, reporting first use June 13, 1958.

ESPESENE, for petroleum product used as a diluent in the production of household insecticides. Filed Sept. 5 of last year by Eastern States Petroleum & Chemical Corp,. Houston, claiming first use July 16 of same year.

MING JADE, for perfume, toilet water, cologne. Filed April 18, 1958 by Stanley Home Products, Inc., Westfield, N. J., assignee of Vixen Chemical Corp., d.b.a. Marquez de Elorza, Newark, N. J.

T. L. C., for medicated emollient for topical application. Filed April 8, 1958 by Polychem Corp., New Haven, with first use Feb. 7 of same year.

ZEPORIZER, for sanitizing and deodorizing preparations. Filed Dec. 31 by Zep Manufacturing Corp., Atlanta, with first use March 1950.

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Contains a complete section, with more than 200 formulations covers foods, insecticides, cosmetics, paints, medicinals, hair preparations, space deodorants, etc.

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Index to Advertisers ▸▸ September 1959

—A—

Aero-Chem Laboratories Inc..... 73
Aerosol Corp. of the South..... 72
Aerosol Research Co..... 3
Aerosol Techniques, Inc. 74
Air Reduction Co..... Aug.
Allied Chemical Corp., General Chemical Division..... 36, 44, 45
American Can Co..... 45
Anchor Plastics Co., Inc..... 65
Apcon Co..... 75
Armstrong Laboratories..... Aug.
Associated Brands, Inc..... 73

—B—

Baltic Chemical Co..... 79
Barr, G. & Co..... 71
Builder's Sheet Metal Works Inc. 60

—C—

Chase Products..... 72
Cleveland Aerosol Pkg. Corp..... 71
Clinton Valves, Inc..... 39
Colton, Arthur Co..... July
Consolidated Aerosol Corp..... 75
Consolidated Pkg. Mach. Corp.... 64
Continental Can Co..... Aug.
Continental Filling Corp..... 71
Crown Cork & Seal Co..... 57

—D—

Dodge & Olcott, Inc..... Aug.
Dow Chemical Co..... Aug.
Druk-Pak, Inc..... 58
duPont de Nemours Co., E. I.....4, 35

—E—

Emson Research, Inc..... July
Ertel Engineering Corp..... Aug.
Eska Chemical Co..... Aug.
Evans Research & Development Corp. 78
Eveready Products, Inc..... 71

—F—

Fairfield Chemical Division..... 11
Food Machinery & Chem. Corp.
Farbwerke Hoechst..... Aug.
Felton Chemical Co..... Aug.
Florasynth Laboratories, Inc... Aug.
Fluid Chemical Co..... July
Foresman, Robert A., Jr..... 68
Walter Frank Organization..... Aug.
Fritzsche Bros..... 9

—G—

Geigy Agricultural Chemicals Div., Geigy Chemical Corp.....July
General Aniline & Film Corp..... 15
Gilbert Plastics, Inc..... 2nd Cover
Givaudan-Delawanna, Inc..... Aug.
Adolph Gottscho, Inc..... 64

—H, I, J—

Hysan Products Co..... 70
IKI Manufacturing Co..... Aug.
JG Machine Works..... Aug.

—K, L—

Karl Kiefer Co..... Aug.
Kiwi Coders Corp..... 66
KLM-Royal Dutch Airlines..... 54

—M—

Magnus Mabee & Reynard, Inc....July
Master Tank & Welding Co..... 68
McLaughlin Gormley King..... July
Mojonnier Associates Division Kartridge-Pak Machine Co.... Aug.

—N—

Nalbach, John R. Engineering Co..... 63
National Spray Can Filling Corp. 74
Newman-Green, Inc..... 67
Norda 61

—O—

Old Empire, Inc.....69, 73
Onyx Oil & Chemical Co.,..... 12
Owens-Illinois Glass Co.....Aug.

—P—

Pace, Inc..... 59
Par Industries, Inc.....67, 72
S. B. Penick & Co..... 16, 17
Pennsalt Chemicals Corp..... 10
Penn Cork & Closures, Inc..... Aug.
Peterson Filling & Packaging Co. 3rd Cover, 71
Pfizer, Chas. & Co..... Aug.
Polak's Frutal Works, Inc..... July
Powr-Pak, Inc..... 73
Precision Valve Corp..... 14
Pres-Pak Valve Corp..... Aug.
Puritan Distributing Co. Aerosol Filling Division..... 73
Products Packaging Inc..... 71

—R—

W. T. Rawleigh Co..... 71
Red-Ram Chemical Co..... 74
Reed Research Corp..... 74
Richford Corp..... 51
Risdon Mfg. Co.....4th Cover
Rohm & Haas Co..... July
Roure-Dupont, Inc..... Aug.

—S—

SAFCA Aerosol Group..... 47
Schimmel & Co..... Aug.
Sprayon Products..... Aug.
Stalfort Pressure-Pak.....52, 73
Sun-Lac, Inc..... 73
John R. Struthers Co..... 74

—T, U, V—

H. Emerson Thomas & Assoc..... 79
Thomasson of Pa., Inc..... 74
Tube Manifold Corp..... 66
Union Carbide Chemical Co..... 18
U. S. Bottlers Machinery Co..... 66
van Ameringen-Haebler, Inc....48-49

—W—

Western Filling Corp.....72
S. S. White Dental Foundation.....78
Wisc. Alumni Res Foundation.... 78

Collapsible Tubes Gain

The sharp recovery in shipments of collapsible metal tubes so far this year continued with a 24% gain in May, bringing the total to 479,389,000 units in the first five months of 1959, the Collapsible Tube Manufacturers Council has reported. The five-month total was up 20 percent from a year ago, when collapsible tube shipments suffered serious inroads from conversions to aerosol packages for toothpastes and other products.

The recent rise in tube shipments resulted in consumption of 10,532,000 pounds of metals, of which lead totalled 5,536,000 pounds; aluminum, 3,884,000 pounds; tin, 605,994 pounds and the balance in tin-coated and tin-lead alloys. A total of 4,826,000 aluminum slugs were consumed.

•

Revlon Buys Hair Color Firm

Revlon, Inc., New York, major aerosol marketer, has purchased Bressard Hair Products Corp. and Bressard Distributors, Inc.

OVER THE TRANSOM

"THE TOP aerosol social event of the year" is what most people who attended are calling the Fifth Annual Aerosol Industry Golf Tournament, which was held August 11 at the Winged Foot Golf Club in Mamaroneck, N. Y. It was also probably the largest gathering of aerosol suppliers, fillers, and marketers (for purely social reasons) in a long time.

Aside from some very good (and some not-so-good) golf, there were a number of humorous sidelights. For instance, within a space of five minutes off the tenth tee, John Ayres, of Oil Equipment Laboratories, a pretty good golfer, topped his drive and landed three feet away—*under* the marker for the ladies' tees (a round helmet-like metal object with three golf-ball sized holes in the top). Some minutes earlier, Gene Rose, Chicago filler, had been grazed by a sliced approach shot hit by one of his propellant suppliers.

As will be seen by the report on page 37, Salvatore Noto, technical director of Sun-Lac, Inc., Newark custom filler, was the winner of the cup for the best net score. But playing in the same foursome with him were John deElorza (Old Empire, Inc.), who set the tournament high with a 181, and two other 125 plus duffers of the same old school. The two caddies were pretty winded after trailing *this* foursome, and at least a half dozen golf balls either were deposited in watery graves or deep in the woods before the dust had settled.

* * *

So far as could be determined by a quick survey just before press time, the steel strike as yet has not cut seriously into aerosol filling activities—though it is expected to slow up some of the activity if it goes past mid-September. So far the one thing we've heard of it doing was to slow up some equipment deliveries.

* * *

As most European aerosol marketers are becoming aware, the Iron Curtain is no bar to consumer interest in aerosol packaging (though the relatively small buying power of the people on the other side of the barrier is a limiting factor). People attending the Poznan Trade Fair, the American Exposition in Moscow, and other such exhibitions have all been highly interested in the aerosol package.

* * *

Latest product in the "believe it or not" category is an aerosol snake repellent introduced recently by Flamemaster Chemicals, Inc., Culver City, Calif. We've no information yet on how it works, but we'd be interested to hear if there's any guarantee that it will work!

* * *

Peter Lodes, 13-year old son of Fred Lodes (president of Lodes Aerosol Consultants, Inc.), was pictured making a lovely golf shot in the *New York Times* for August 20. Peter was one of the competitors in the Westchester County Golf Association's junior golf championship, which was won by Wes Voight, 19-year old son of Elmer Voight, golf professional at the Sunningdale Country Club.

* * *

In case you haven't noticed, the toilet goods industry has not particularly enjoyed the current session of Congress. Aside from the lack of action on the Fair Trade legislation, there has been the measure on artificial coloring (for lipsticks, etc.) and indications of passage of a bill on hazardous substances.

* * *

One consumer gripe about aerosols we think is probably justified: that shaving cream and other such product containers, left on the bathroom sink, leave a rust ring. Large volume marketers, particularly of shave creams and toothpastes, should study lacquer coatings and other chemical means of reducing this annoyance. The Purex Corp. in a recent study discovered that this is one of the major complaints about cleanser containers.

* * *

Barbasol is currently attempting an entirely new approach to selling aerosol shave cream. It has just sent to every U. S. dermatologist a mailing describing the benefits of using its new formula "Presto Lather." Object: increased sales via direct doctor-to-patient recommendation.

"Yah, but what's the good of it without a razor?"